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THE PRESENT STATE OF EUROPE

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THE task of the political weather-prophet is not an easy one at the best; and of late his forecastings have on the whole come disastrously to grief. If he would keep what little reputation he has left, he must certainly be more careful in the future. He must not again alarm people by telling them that half the nations of Europe are decadent and plunging into rapid ruin. He must not foretell that the Japanese war-cloud is a mere transitory darkening of the horizon, destined to pass swiftly away, leaving things once more in undisturbed serenity. These unfortunate miscalculations have damaged his credit very much, and it behooves him to keep a closer and more scientific watch on his political aneroid. He must watch the march of cyclone and anti-cyclone athwart the map of Europe, and no longer use the haphazard methods he has hitherto practiced with such delight but unhappily with so poor results.

We would fain give him to-day a helping hand, and point out to him that there are at present two phenomena which he should observe with especial care. One may be called a cyclone, and its name is Imperialism. The second we may call an anti-cyclone, and it as yet has no name. Its symptoms are nevertheless comparatively simple; wherever it passes men, as if suddenly relieved

of some overpowering oppression, begin to look cheery; their talk takes on the most optimistic tone; they shake hands and swear eternal peace; they would like to make a bonfire of butcher-instruments of war; they point towards The Hague with manifest satisfaction; and after much bowing and scraping they set themselves to write each other long lists of mutual concessions and sign guarantees of perpetual amity. How shall we call the atmospheric condition which produces such amiable results? For want of a better name let us ticket it *lumière-ism*. Both these phenomena are to-day observable throughout Europe, frequently in close proximity and in startling contrast. First let us pay attention to Imperialism and note its variations as it occurs in different countries.

It may be reduced to three types: British, German, and Russian; each to be examined in due course.

The extreme supporters of British Imperialism do not attempt to show it us as a beautiful aspiration, but generally insist that it is the outcome of dire necessity. They declare that the safety of the mother-country depends upon her capacity for giving birth to a constant progeny of younger Britains studding the two hemispheres in various directions. England, according to them, is driven onwards to an universal Imperialism, just in the same manner as ancient Rome, in mere self-defense, was impelled onwards to an universal dominion. First, to protect the city, the various environing competitors had to be conciliated or suppressed, and thus, in constantly broadening circles, the conquests of Rome spread on, the outer ring being always sought for in order to preserve the ring within. First Latium, then Central Italy, then Italy North and South, then the whole Mediterranean world, then, to secure the rest, England and the near East. In the same way we are taught that England proceeds, not in pursuance of a vague and abstract ideal, but always in the business-like manner supposed to characterize the Englishman, and by force of necessity.

Germany has an Imperialism quite as markedly its own. It is an Imperialism founded on theory. The British and, if in a lesser degree, the American mind, is little given to enthusiasm for theories, and will be inclined to depreciate German imperialistic views set forth in books of the last decade with an eloquence trans-

figuring the heavy periods of the usual German style to a degree scarcely credible, and backed with a scholarship and deep thinking which the "Anglo-Saxon" mind cannot understand in political propagandism. We would name one or two of the most remarkable of those books, and foremost among them *Rembrandt als Erzieher*, by "a German," a work which has had the most astounding vogue throughout the Fatherland, has run through close upon a hundred editions, despite the ponderous mass of labored thought that weighs down every page, and despite its lack of all stylistic charms. Its anonymity has long been known to hide the name of Langbehn. While it would be vain to deny that the reflections it contains would leave the Anglo-Saxon mind almost unimpressed, yet they have sunk indelibly into the Teuton brain.

The second book whose importance cannot be underrated is the *Grundlagen des XIXten Jahrhunderts*, by an Englishman writing in German and thoroughly saturated with German ideals; his name is Houston Stewart Chamberlain. This work fills two bulky volumes. It is dressed in a garb such as would captivate the sciolists, the *Bildungsfexe*, the culture-fiends forming so large a proportion of the German reading public. They must be delighted with the specious show of scientific and philosophic insight with which various burning problems are treated. In England probably the work would pass unnoticed; in Germany a rich enthusiast has at his own cost presented thousands of copies to the public libraries. The chief characteristic of this sensational publication is the way in which it drives the theory of race to its most extreme conclusion, one might almost hope, to death; and in this respect it is like the writings of Count Gobineau, which, after many years of neglect, are now being strongly taken up in Germany. It, thus appeals to the strongest source of national vanity.

The third book is by far the shortest, but by far the most dangerous. It is so new from the press that it is too early to estimate its powers, but is written in so excellent and so striking a style, and shows such wealth of real, sound thought, that its influence can hardly fail to be immense. Moreover, it avoids the absurd error of Mr. Chamberlain and furnishes an explanation of "race" which the most bitter opponent of racial theories will

gladly accept. It especially gives the whole Imperialist force a centre in the personality of the Emperor. The title of the book is *Der Kaiser, Die Kultur und die Kunst*,¹ and is written by one who styles himself the "Irresponsible."

We may seem to be attaching far too much importance to mere literary productions, but it must be remembered that we are dealing with Germany and not with England. Did these books appear in England, they might be dismissed as of no political importance. In Germany they are grave political events. Many singular instances might be given of the extraordinary effect of books in Germany. The Germans, and even Germanized Slavs, like the French, too, are highly amenable to intellectual influences. We must remember that nearly all the great political and religious movements by which Germany has been agitated and torn have almost invariably had kindred intellectual movements as their forerunners. The intellectual unity of Germany preceded her political unity, and in this sense while we cannot by any twisting of facts assert that Shakespeare caused the political consolidation of England, Scotland and Ireland, nobody can fail to admit that Schiller, Goethe, Lessing, Herder and Wieland created the intellectual unity of Germany of which the political union was merely the amplification.

What more striking contrast could one find than the rise of the Reformation in Germany and England? In Germany a little pamphlet appears, a few theses in Latin dealing in the main with purely abstract aspects of the Papal power, and in the twinkling of an eye the whole of central Europe is thrown into violent ferment, leading with lightning rapidity to the most uncontrollable outburst of religious passion. And all this on account of a few lines written by a more or less obscure Wittenberg professor in theology. One would like to find a parallel instance in England where a book has led to such widespread results. But one may search in vain. Another professor in Prague, in a few words, summoned the formidable Hussite movement into existence. England, too, had her obscure Oxford theologian, her Wiclif; but with how different results! English people put themselves out

¹Published 1904. Müller, Munich and Leipsic, pp. 139. 8vo.

very little about the Wiclif doctrines. Wiclif preachers might go up and down the land in all directions preaching heresy, but few indeed were the sheep which they could lure from the fold of orthodoxy. A summons or two before the court Christian, a score or two of burnings at the stake, and Lollardy became a negligible quantity. The few adherents it had gained, enlisted, doubtless, with an eye to profit, and recanted without more ado. No Wiclifite crusade was wanted. When the real English Reformation was destined to come, it was to proceed along very matter-of-fact lines, and we must not forget that under Henry VIII. doctrinal change was not only not tolerated, but visited with the utmost rigor of the law. The political power of the Pope was gone, but to deny the tenets of the Catholic Church was death of a most unpleasant kind. Thus we see that in Germany and England the whole march of events proceeded on inverse lines.

With such an example before us, we shall be less inclined to regard German brain-born Imperialism as unimportant. English need-born Imperialism has given rise to a firm and dogged resolution. German brain-born Imperialism threatens to breed a fanaticism, and when fanaticism seizes on the hearts of sixty million living people he would be a rash man who would predict whither it may lead.

Thirdly, we come to Russian Imperialism, which, as we have frequently shown, is not the expansion of force but the expansion of space. It would, however, be entirely misreading Russian history, if, with our eye upon her present military disasters, we were to imagine that her Imperialism is without *raison d'être*, is forced and objectless. It is much more. It is the sole basis upon which the present home government can be maintained. Russia is paying at home the price of her premature Imperialism. We have seen in the "Success among Nations" that there is one formula which will cover the development of all European nationalities. In addition to constant fights among themselves they have passed at home through three progressive trials, intellectual Renaissance, religious Reformation and political Revolution. After having successfully withstood this triple purgation many have at last embarked on an Imperial career. In Russia, on the other hand,

Imperialism stands at the beginning of her history, at its middle, and at its end, and as the price for this great ideal Russia has had to forego Renaissance in the real sense, and has had to get on without Reformation or Revolution. Let it not be imagined that it is because of her illiteracy and ignorance that Russia has so long tolerated absolutism. It is only with calm within that a country can expand without. Russia has set up expansion as the acme of her desires, and she has been steadily spreading since the days of Ivan the Terrible, in the sixteenth century, when she already held vast territories and had great stretches of Siberia in her grip. As long as Russia expands, the home government is safe. But let the Russian once see that his ideal is no longer being fulfilled and he will turn critical eyes upon himself. He will begin to ask why he should be pulverized beneath the heel of despotism, if despotism no longer accomplishes the task of establishing Russian Imperialism for which it is appointed. Then, we shall see no revolution, for between the privileged nobility and the peasant masses there is no revolution-making *bourgeois* stratum, but we shall see anarchy becoming uncontrollable. The desire for revolution will be there, but the means will be lacking; the minds to organize are wanting, while the unorganized forces of revolution will be there. So things may turn if the Japanese prove entirely victorious and Russia finds her Imperial ambitions brought to a rough and rude termination on every side. But this will not be without a serious struggle. It is in the interest of the government, indeed it is with it a matter of life and death, to sustain the war interminably. The Russian nation itself is not at the end of its patience and perseverance, and if at first defeated, may recoil, in order to make years of thorough preparation, and then once more endeavor to advance. All this depends upon the power of the Japanese; but we may rest assured that in the case of anything but irrevocable disaster, Russia will remain docile beneath the tyranny which it bears as the price of its ambitions. When Russia is defeated, there will always be recrudescences of plots, bombs and assassinations. M. de Plehve's death is the concomitant of the reverse at Ta-tsi-chao; as the tragedy of Alexander

II. was the sequel of the Peace of San Stefano and the Congress of Berlin, so humiliating for Russia.

In order to illustrate the truth of what we have said of the price paid for Russian Imperialism, let us but for a moment think what other great European nations have had to pay down for their empires: a subject of direct interest for the Americans. Perhaps no more striking example can be found than Spain. We have had a good deal to say in the "Success among Nations" of the peculiarities of the Spanish, and we have pointed out the astounding manner in which in a few years after the discovery of America they had succeeded in annexing the major part of the Southern and Central Continent and established a colonial empire which it may almost be said has never since been surpassed and on which, though it has now been torn from her shred by shred, she has left the lasting stamp of Spanish character, Spanish genius, Spanish language. But why did Spain do these great things? Spain stretches not much farther west than France and England; she is no closer to America. How was it, then, that she was able so long to outstrip her French and English competitors, who, we may be certain, did not see with indifference the treasure-laden galleons and galleasses making for the ports of Spain, while their own havens were in particular need of a little gilding? The secret lies in the internal state of Spain, for in that alone was the Spain of the early sixteenth century entirely different from the other lands of Europe. In Spain the Catholic Church reigned supreme. Over the rest of Europe her dogma was everywhere being disavowed and her power being rejected amidst terrible convulsions. It was the time of the religious wars: in France Protestant in arms against Catholic, and for four-and-thirty years (1559-1593) butchery and bloodshed whereof the reading fills us with horror; in Germany, Luther and the rumblings of thirty years of war to come; in England, religious ferment, though no war; but monasteries torn down, monkdom destroyed, and the Papal Power denied; then Catholic restitution; then destitution once again; in fine, France and England, full of sores at home, were in no position to carry the sword abroad; the fever-stricken must lie

sick abed, they cannot go about, and in the superabundance of their energies, acquire new property in foreign lands.

But in Spain things were different; the Catholic Church was indeed questioned, but by dint of cruel inquisitions and wholesale *auto-da-fés* heresy was kept in bounds. Had, then, the Spaniard no stomach for resistance? No intelligence and courage which forbade him to acquiesce in all this murder and outrage? Courage he had, but it was only the courage which hardened him in bigotry; and to this day he has remained the most bigoted of men. It is personal converse with the Spaniard of high and low degree which first fills us with astonishment at the glaring incongruity of his complex character. There is no keener intelligence, no finer sense of art, no more brilliant mine of wit, no more fascinating company, no more unfailing stately courtesy than that of Spain. Is it possible that the country which is illustrious for its painters, its Murillo, its Velasquez; its writers, its Quevedo, its Cervantes, its Lope de Vega, should at the same time have the reputation for the bitterest and most unflinching bigotry? Yet so it is; the bosom of the Spaniard who dazzles you with his conversation, and engaging humor, who reads your own character at a glance, is perhaps at the moment he talks to you vexed by the hair-shirt of penitence. Touch him on the point of religion, and he will reveal a nature you have hitherto never suspected.

The Spaniard, it may be subconsciously and by that kind of instinct which apparently guides nations on their appointed path, felt that the one condition which would allow him to tread the boundless vista of wealth and empire which suddenly broke upon him in the west, was to have done with the Catholic Church, the single disturbing element in his domestic affairs. But how was this to be done? Was he to shake himself free of the Catholic religion and loose himself from papal domination? For such a course the majority of the Spanish people was certainly not yet mature. Only one other course remained, and that was the most complete submission to Rome. And of this we find symptoms in the ready acquiescence in the establishment of the inquisition, the unresisting yielding up to execution of all the possible seeds of heresy and division. The Spanish conquerors became soldiers of

the Cross, and the New World was won as an appanage of the Holy See. As Spanish hopes of dominion grew wider the bigotry of Spain deepened. But may we not now expect to see a change come over the Spanish character? One by one their possessions have renounced allegiance and their provinces have been stripped from them; their fidelity to St. Peter has proved in vain; their faith has gone unrewarded; it is to-day that we may look to see Spain revolutionized, to-day the barriers of bigotry will fall, and the country will come into line with other European nations. Spaniards of to-morrow will wonder how it was that their forbears clung to dogmas and hierarchy to the shortcomings of which they are now keenly alive. They will forget that bigotry was the premium which they had to pay for Spanish Imperialism. In this sense we may deem they owe the greatest debt to America, whose conquest of Cuba will prove to have been the awakening of Spain. The victories of Schley before Santiago de Cuba and of Dewey before Manila have debigotized the Spanish, whose future progress we may confidently expect.

With this comparison we may conclude what we have to say of Imperialism. Like all ideals, it cannot be had for nothing. The greater the ideal, the greater the price. If in Spain the building of an empire has demanded the bigotizing of the Spanish soul, in Russia every new annexation has cost the indefinite postponement of intellectual enlightenment, has put off for yet another epoch the liberation from the stultifying Russian church, has added yet another course of bricks to the barrier-walls of class, and has granted to absolute government yet a new lease of life.

We now come to dwell upon the anti-cyclone whose circles may be seen spreading over large tracts of Europe; in France and Russia it has made itself especially felt, while in Germany its presence has proved a galling source of vexation for the statesmen who have nailed the colors of German Imperialism to their mast. They fear that if the anti-cyclone continues to spread, their flag will soon have no flutter left in it at all.

It is in France that we can watch the phenomenon to greatest advantage. To begin with, it is not the first time that France has

passed through periods of political depression. We shall be able to strike comparisons which may perhaps prove instructive.

To the dweller in France, who is familiar with her history, and has seen life in France under other circumstances, nothing could be more astonishing than the general tone of polite conversation as he hears it to-day. All talk hinges upon peace and international confraternity. People wonder how it was that centuries were required for the contrivance of so ingenious an invention as The Hague Tribunal, by which for the future all disputes are to be settled in the midst of smiles and amiability. "Rifles and sabres can hang up to rust or be sold cheap to barbarous strangers; we have no further need for them. How we can have been so stony-hearted as to hitherto so misuse our fellow-creatures, we fail to comprehend."

Such is the general drift of talk in educated circles of modern France, almost astounding on the part of the most bellicose of nations, whose history is one long tale of incessant combat. For the French are people who carry strife into the daily comings and goings of private life to an extent incredible to lukewarm Americans and English. Among Anglo-Saxons men are wont to go about and dispatch their daily business with little show of amity or animosity, both of which they consider to lie outside the bounds of business life. In private life they do all they can to avoid friction; they have a few friendships, more half-friendships and a minimum of exceptional enmities. They voluntarily rub nobody up the wrong way. But how different are things in France, where aggressiveness is the rule of private life; where conversation is carried on every day with two very dangerous implements, irony and satire; where few people meet in an indifferent fashion. On the one side of the channel newspapers indulge very rarely in anything but mild libel, rapidly visited with heavy penalties aiming at the preservation of indifferentism in public life; on the other side an aggressive article may terminate in a whole crop of challenges and duels. In business life we meet often with a degree of animus unbelievable, whereas in England a man is frequently crushed down by competition without any outward sign of emotion.

When a nation possessed of such characteristics as these begins to interlard its conversation with dissertations on general pacification, goes to lectures on arbitration, devours articles on international peace and good-will, it is pretty safe to hazard that something is wrong somewhere. A little reference to previous moments when peace and humanity have been the cry will furnish us with a clue to the puzzle. We shall find that when France begins to dote on peace and *lumière*-ism it is sure to be in days of bitter humiliation outside. She has suffered a reverse which she does not venture to avenge, and she tries to find some balm with which to soothe the aching sore of self-depreciation. She tries to persuade herself that after all strife and turmoil are not the real business of nations, that if she has been defeated there is, after all, not quite so much disgrace in being discomfited where one has been so entirely wrong-headed; she would like to have herself believe that her vocation is quite different; that it is her mission to spread *light* and civilization over Europe through peaceful and humane channels, not at the cannon's mouth.

There is a problem in the literary history of France which has troubled many brains, but has received no satisfactory explanation. Taken apart from the history of France, it is indeed inexplicable. When we read to-day the works of Jean Jacques Rousseau we are indeed ready to admit his charm of style and his love of nature, and we are taught, no doubt very correctly, that this love of nature was a novelty in the sixties and seventies of the eighteenth century. But we are quite at a loss to see what excited that extravagant outburst of enthusiasm with which Rousseau's publications were welcomed. *We* are very moderately moved; but by his contemporaries Rousseau was hailed with almost wild excitement; they read him all day and put him under their pillow by night—every moment apart from him was set down a loss. But why? Have we so changed, have we become so glacial that we are no longer susceptible to the influences that warmed thousands upon thousands of hearts little more than five quarter-centuries ago? No, but the fact is that Rousseau rang just in unison with the feelings of his day.

The defeat of 1763 had utterly prostrated France, and she

had had to passively allow herself to be stripped and despoiled of all her fairest colonial possessions. There was no help; for she was battered and impoverished beyond resistance. It was hard to find consolation, but by an appeal to her own feelings she found it. She professed to have made the remarkable discovery that her rôle was the humanizing of her barbaric fellow-men. Civilization had hitherto been hurrying us to perdition, hardening our hearts and turning us away from Nature, who is alone good and compassionate. Such was the gospel according to Rousseau, and it came as ointment to France. War was entirely wrong, therefore they would have wars no more. And what disgrace in being defeated in the wrong? It is but the chastisement and chastening of perversion. For the future *sensibilité* was then the cry; let us become tender-hearted and merciful; let us treat our servants, whom we have hitherto regarded insanely as inferiors, as our equals; let us hug and embrace all men; let us be kind to animals; let us hurt no one and nothing and become soft to the melting-point. So preached St. Rousseau, and so the French were over-delighted to believe.

But the dispassionate gaze of the historian sees otherwise; for him, from behind the *sensibilité* of those days, glare through the shame and despair of 1763; the treaty of Versailles and the razing of the works of Dunkerque. Even so to-day. From behind the prattle of arbitration, from behind Hague Tribunal and *entente cordiale* rises, too discernibly, the phantom of the lost provinces for which as yet France has no stomach to strike a regaining blow.

We would not insist too much upon the parallel between *sensibilité* and its sequel, the French Revolution and the Napoleonic wars, with all their limitless outsluicings of blood, and the present *lumière*-ism and its possible outcome. We leave the reader to ask whether it is not the shadow of coming events which is cast before; whether it does not forebode yet more terrible conflagrations.

There is sufficient indication even now that *lumière*-ism is after all no more than skin-deep. We have spoken of French aggressiveness, and it would be absurd to suppose that it could so rapidly disappear; if its outlet in one direction is clogged, it can only be diverted and must find escape in some other quarter. Outlet in

foreign war it cannot have, for the French have no intention of drawing down Germany upon them. Colonial ambitions allow them no opportunity, for the nonce, of working off their superfluous aggressiveness without embroiling themselves in a European conflict; the suppression of not very combative colored tribes does not at all exhaust their pugnacity. Where, then, are they to find an enemy who is not either above or below their present needs? The present ministry of France thinks to have solved this knotty conundrum in attacking the Roman Catholic Church. The future alone can tell us whether they have not underestimated their foe. So far the French have carried things with a high hand, but people who have been willing and able to risk more in the same conflict have tried it before and have also been brought to contrition for their temerity. It is a fatal error to think the Catholic Church upon its dotage. The road to Canossa still lies open, to be trodden soon, perchance, by a penitent M. Combes. Where Bismarck has so signally failed, with all Protestant Germany to back him, who shall venture to say that the Minister of France, with all the ranks of Catholic France arrayed against him, shall succeed? Indifferentism and lukewarmness may have made strides of late in France, but it cannot be denied that the vast majority of French people are still devotedly Catholic, and even the waverers will be rallied to the Papal cause. The Papacy fights with spiritual weapons which play formidable havoc and are all the more redoubtable because they can be matched with none from the ministerial armory. M. Combes and his allies may live to wish that what they have done had been left undone; they may yet live to see the day of humiliation.

It is not any part of our purpose to speak for or against the pending religious struggle, which we have only called in as a proof of the utter shallowness of the French prattle of peace, civilization, and humanity.

French *lumière*-ism has found its echo amid her nominal allies, but what appears absurd in France becomes highly grotesque when we meet it in Russia. When we see the power which has staked its all upon aggression, which depends for its very existence upon the trampling annually a few more roods of territory into subjec-

tion, a country built up on military despotism, a land which is a camp always at war or upon the eve of war, it becomes indeed hard to contain one's self. How ridiculous the Russian peace-movement really is, hardly requires proof. The contrast between The Hague Tribunal, founded as a kind of prelude to the South African War, and continued as an accompaniment to the bellicose music of the Far East conducted by its founder—its absolute impotence and insignificance is too patent.

The greatest error, however, is to imagine that the movement contains anything new. Nicholas the Second is in nowise a superior imitation of Alexander I. And the Holy Alliance of 1815, which was going to keep Europe forever and a day in lamblike good-fellowship, ended very much as The Hague Tribunal has begun. Every nation has its dash of sentimentalism, and Russia has perhaps a broader dash than any other country. It finds its expression in such peace-propositions as these; it is the manifestation of the dreamy side of the Russian character, but unhappy the man who takes it too seriously.

The greatest preacher of peace to whom Russia has given birth is Tolstoi. There is indeed something touching in the visible simplicity with which that writer poses as the light-bearer of Europe. He has had the life which fits him so preëminently to be a judge of Europe's future. How clearly he must be able to pick out each detail of the complex, palpitating, living interests and cross-interests which agitate the life of Europe; the social interests, the political interests, the religious interests, the national interests, the reconciliation of a very few of which has taxed the cleverest brains in Europe. But through the smoky gloom of his *mujik* shanty the complications of Europe sink into nothingness: he sees no more difficulty in finding the case to fit the whole of Europe than he would in finding one to fit the dead and doltish, unimpassioned population of his village in the steppes. And this is the man whose preachings have been received with fervor, it must be allowed, indeed, with especial fervor, on the western side of the Atlantic, where an equally false idea of Europe prevails; where the Old Continent is looked upon as a not very important agglomeration of enfeebled and decadent states; a matter on which we

have insisted too much in the "Success among Nations" to make its rediscussion necessary.

In Germany the peace movement has also roused considerable stir; it has been warmly taken up by the Socialists, but from the statement of Herr Bebel in the Reichstag, who publicly declared that in case of war the Socialists would stand loyally by their country, we may judge that this warmth is of a kind which may be readily cooled.

What the Germans and Russians say of peace is after all not so momentous, since on the whole it is heard by few outside those countries. But French political writings are of far wider effect. What we would warn our readers against is ascribing undue importance to them.

An undoubtedly happy arrangement has of late been concluded between England and France; but the error lies in supposing that this treaty is the outcome of a general yearning for peace. Treaties have been made and unmade ever since history began, and it will be found that they have always been signed or broken from motives of pure political interest; we cannot recognize that any other principle has been active in the negotiations of the last few years. There have been recently made treaties of arbitration between France and England, France and Denmark, France and Sweden, a treaty of partial arbitration between England and Germany, and a similar arrangement between England and Italy. But it cannot be advanced that these treaties have been triumphs of *lumière-ism*.

Let us take only the Anglo-French treaty. Could anything be of a more practical political character? It is mainly the outcome of Royal diplomacy. Nobody has better realized in England the necessity of a strong continental policy than has King Edward VII. He knows the peril which England runs in trying to continue her policy of isolation; he knows very well that tariff conventions and colonial combinations will never set England in a position to defy the rest of Europe. His deep knowledge of what is going forward on the Continent has given him, among other things, the clearest idea of the growing hostility of Germany to England, and he, unlike the majority of his subjects, does not

regard this hostility as negligible. He has gone about to counterbalance the weight of German hatred, by drawing closer the bonds of interest between England and France, knowing full well the inestimable value in case of war of French alliance, or even French neutrality. Nobody knows better than King Edward that, however strong you may be, there is no particular advantage in having two enemies in the place of one. And so with a very direct eye to political advantage and not taking his inspiration from vague humanitarian dreams, he has gone about to cement the French alliance, wherein, owing to the tact for which he is so well known and esteemed, he has proved remarkably successful. It is obvious that under the circumstances France is the natural ally of Great Britain. All causes of friction are at all events momentarily in abeyance. But let once the bitter cause of variance, the rankling wound of ravished Alsace and Lorraine be satisfactorily removed, or let, as may well come to pass in the seesaw movements of politics, the aims of Germany and England coincide, then the Franco-English *entente* will rapidly collapse. Albion will become once more "perfidious" in the eyes of her sometime Gallic allies, and England will revive with yet more aggressive spirit fond memories of Crécy, Poitiers, and Agincourt.

Meanwhile, how little faith the Powers have in the pleasant song of peace is shown in the volumes of smoke that belch continuously from their factories of arms, the tramp of drilling conscripts, the bustle of arsenals, the building, equipping and victualing of fleets. All that goes on in Europe shows that the nations make ready, little confident in humane professions and resolves, for the imminent day of war.

EARTH AND MAN

AN ECONOMIC FORECAST

N. S. SHALER

THE situation of man with reference to the material resources of the earth deserves more attention than has been given to it. Here and there students of the mineral deposits of certain countries, especially those of Great Britain, have computed the amounts of coal and iron within limited fields and estimated the probable time when those stores would be exhausted, but a general account of the tax that civilization makes on the fields it occupies and a forecast as to their endurance of the present and prospective demand on them is lacking. It is evident that such a forelooking should be one of the first results of high culture. We may be sure that those who look back upon us and our deeds from the centuries to come, will remark upon the way in which we use our heritage, and theirs, as we are now doing, in the spendthrift's way, with no care for those to come. They will date the end of barbarism from the time when the generations began to feel that they rightfully had no more than a life estate in this sphere, with no right to squander the inheritance of their kind.

To see our position with reference to the resources of the earth it is well to begin by noting the fact that the lower animals, and primitive men as well, make no drain on its stores. They do not lessen the amount of soil or take from the minerals of the under-earth: in a small way they enrich it by their simple lives, for their forms are contributed to that store of chemically organized matter which serves the needs of those that come after them. With the first step upward, however, and ever in increasing measure as he mounts towards civilization, man becomes a spoiler. As soon as he attains the grade of a hunter he begins to disturb the balance of the life about him and soon attains such success in the art that he exterminates the larger, and therefore the rarer beasts. Thus when our *genus homo* comes into view, elephants of various species exist in considerable numbers in all the continents except Australia. Its first large accomplishment appears to have consisted in the extermination of these noble beasts in the Americas,

in Europe and in Northern Asia. There is no historic record of this work, but the disappearance of the elephants can be well explained only by the supposition that they went down before the assault of vigorous men, as has been the case with many other species of large land animals.

So long as men remained in the estate of the hunter the damage they could do was limited to the destruction of the larger beasts and the birds, such as the moa, that could not fly. Prolific species, even of considerable size, such as the bison, if they were nimble and combative, seem to have been able to hold the field against the attacks of primitive hunters. While in this station the tribes of men are never very numerous, for their wars, famines and sorceries prevent their increase, which, under the most favorable conditions, is never rapid among savages. As soon, however, as stone implements begin to be replaced by those of metal, man begins to draw upon the limited stores of the under-earth, and with each advance in his arts the demand becomes the greater. In the first centuries of the iron age the requisition was much less than a pound each year for each person. Four centuries ago it probably did not exceed, even in the most civilized countries, ten pounds per capita each year. It appears to have been at something like that rate when the English colonies were founded in North America. At the present time, in the United States, it is at the average rate of about four hundred pounds per annum for every man, woman and child in the land, and the demand is increasing with startling rapidity. It seems eminently probable that before the end of the present century, unless checked by a great advancement of cost, it will require a ton of iron each year to meet the progressive desires of this insatiable man.

Of the other long-used metals and other earth resources the increase in consumption is, with slight exceptions, as notable as in the case of iron; within a generation, mainly because of the use of the metal in electrical work, the need of copper has augmented even more rapidly than that of iron and the gain in the requirements is going on with startling rapidity. So, too, the demand for the other base metals long in use, zinc and tin has been in nowise lessened by the more extended use of iron and copper,

they are ever finding new places in the arts and a larger demand in the markets. As regards the so-called noble metals, silver and gold, the demand from the beginning has not been distinctly related to use, but to unlimited desire. Men have always wrested all they could of them from the earth or from each other with little reference to the profit they won in the process. There has been of late something like a halt in the production of silver, except when it comes as a by-product, because it has generally been abandoned as a standard of value; but taken together the production of these precious metals has in modern times increased about as rapidly as that of iron. It is likely, however, that it will in time become of no economic importance.

As regards the earth's resources in the way of fuel—coal, oil, wood, petroleum and peat—the history of the modern increase in demand is as evident and menacing as in the case of the metals. When the American English colonies were founded, coal had hardly begun to come into use in any country. It is doubtful if the output of the world amounted at that time to one hundred thousand tons, possibly to not more per capita of the folk in Europe than a pound, or about the same as iron at that late period in the so-called "iron age." At the present time the total production of Europe and North America amounts to an average of at least two tons per each unit of the population, and the increase goes on at a high ratio. Petroleum, practically unknown to the Occidental peoples until about half a century ago, has, with wonderful rapidity, become a necessity to all civilized and many barbaric peoples; the increase in the rate of consumption is swifter than that of any other earth product. Timber and peat, the primitive resources for light and heat, are the only earth products for which the demand has not greatly extended in modern times; it appears, indeed, to have shrunk in most civilized countries with the cheapening and diffusion of coal, due to the lessened costs of mining and of transportation.

The increase in the tax of the earth's resources is seen also in the very great number of substances which were unknown to the ancients, or disregarded by them, but which now find a large place in our arts. A comparison of the demands of three centuries ago

with those of our day is interesting. In, say, 1600, when men were very much alive to the question of what they could gain, there were only about twenty substances, other than precious stones, for which they looked to the underground realm. Clays for the potter and bricklayer, whetstones and millstones, iron, copper, tin, gold, silver, lead, sand for glass, mica, coal, peat, salt and mercury make up all the important elements of this list. At the present time, we more or less seriously depend on what is below the ground for several hundred substances or their immediate derivatives which find a place in our arts. Petroleum alone has afforded the basis of far more earth products than were in use at the time of the discovery of America. It gives us a large number of dyes and a host of medicines. It is indeed likely that the products immediately derived from the mineral oils exceed all those obtained from the earth at the time of Columbus—and each year brings additions to the demand.

The advance in needs of dynamic power, in modern times, has been even greater than in ponderable things. Even two centuries ago, the energy available for man's work was mainly limited to that obtained from domesticated animals. The wind served in a small measure through the sails of ships and of windmills, and there were water-wheels, but the average amount of energy at his service was certainly less than one horse-power per capita. At the present time it may safely be reckoned that in the United States and in European countries on a similar economic basis, the average amount is at least ten times as great, and the present rate of increase quite as high as in the case of mineral resources. It is true, that so far as water power is concerned, this increase in the demand for energy in the arts does not come as a tax on the store of the under earth, as it is obtained through solar energy which would otherwise be dissipated in space. But the use of falling water as a source of power, though rapidly increasing, does not keep pace with that of coal, which is obtained from a store which is in process of rapid exhaustion, one that cannot be relied on for more than a few hundred years to come:—if the world keeps the rate of consumption with which it enters the twentieth century it will be exhausted before the twenty-third.

The problem of the underground store of wealth, though as we shall see on more detailed examination it is very serious, is not so immediate or menacing as that afforded by the question of food supply. As far as man is concerned, this supply has to come from two sources—the tilled soil and the waters, especially the sea. While it is possible by a widely extended system of fish culture greatly to increase the amount of food derived from the waters, experience does not warrant the supposition that the supply from this source can be manifolded. The life of the oceans, as of the primeval lands, is already packed to the utmost point. We cannot hope to double the number of edible fishes without reducing the number of their enemies or of the other creatures which compete with them for subsistence; neither of these things can we at present see the way to do. It is to the soil, to the tilled soil alone, that we are to look for the body of the food that is to feed man for all the time he abides on this sphere.

In the life below man, the relation of the creatures to the soil had been beautifully adjusted. The plants, by associated action, formed on all the land surfaces, except in very arid regions, a mat of roots and stems which served to defend the slowly decaying rock against the attack of the rain-water. This adjustment is so perfect that in a country bearing its primeval vegetation the eroding of the soil is essentially limited to what is brought about by the dissolving action of the water which sweeps through the earth and there takes the substances of the rocks into solution; very little goes away, in suspension, in the form of mud. In these conditions the slowly decaying rock goes very gradually to the sea; for a long time it bides in the soil layer where, with the advance in its decomposition, it affords the mineral substances needed by the plants that protect it. Thus until man disturbs the conditions of forest and prairie the soils tend to become deep and rich, affording the best possible sustenance to the plants which feed in them. In their normal state they represent the preserved waste of hundreds, or it may be, thousands of feet of rocks which have gradually worn down by being dissolved in the rain-water that creeps through them.

As soon as agriculture begins, the ancient order of the soils

is subverted. In order to give his domesticated plants a chance to grow, the soil-tiller has to break up the ancient protective mantle of plants which through ages of natural selection became adjusted to their task and to expose the ground to the destructive action of the rain. How great this is, may be judged by inspecting any newly plowed field after a heavy rain. If the surface has been smoothed by the roller, we may note that where a potsherd or a flat pebble has protected the soil it rests on top of a little column of earth, the surrounding material having been washed away to the streams where it flows onward to the sea. A single heavy rain-storm may lower the surface of a tilled field to the amount of an inch, a greater waste than would, on the average, be brought about in natural conditions in four or five centuries. The result is that in any valley in which the soils are subjected to an ordinary destructive tillage the deportation of the soils goes on far more rapidly than their restoration by the decay of the underlying rocks. Except for the alluvial plains whereupon the flood waters lay down the waste of fields of the upper country, nearly all parts of the arable lands which have been long subjected to the plow are thinned so that they retain only a part of their original food-yielding capacity. Moreover, the process of cropping takes away the soluble minerals more rapidly than they are prepared, so that there is a double waste of soil in body and in the chemical materials needed by the food-giving plants.

There is no question that the wasting of soils under usual tillage conditions constitutes a very menacing evil. Whoever will go, with his eyes open to the matter, about the lands bordering on the Mediterranean, will see almost everywhere the result of this process. Besides the general thinning of the soils, he will find great areas where the fields have prevailingly steep slopes from which the rains have stripped away the coating down to the bed-rock. In Italy, Greece and Spain, this damage has gone so far that the food-producing capacity of those countries has been greatly reduced since they were first subjected to general tillage. There is no basis for an accurate reckoning, but it seems likely from several local estimates that the average loss of tillage value of the region about the Mediterranean exceeds one-third of what it was

originally. In sundry parts of the United States, especially in the hilly country of Virginia and Kentucky, the depth and fertility of the soil has in about one hundred and fifty years been shorn away in like great measure. Except in a few regions, as in England and Belgium, where the declivities are prevailingly gentle, it may be said that the tilled land of the world exhibits a steadfast reduction in those features which give it value to man. Even when the substance of the soil remains in unimpaired thickness, as in the so-called prairie lands of the Mississippi valley, the progressive decrease on the average returns to cropping shows that the impoverishment is steadfastly going on.

In considering the struggle which men have to make in the time to come in order to maintain the food-giving value of the soil, it is well to keep in mind the fact that the battle is with one of the inevitables—with gravitation which urges everything ponderable down into the sea. What we know as soil is rock material on its way to the deep, but considerably restrained in its going by the action of the plants which form a mat upon it. All the materials which go into solution naturally pass in that state on the same way; thus whatever we do, we cannot expect to effect anything more than a retardation of the process to that point where the decay of the bed-rocks will effectively restrain the wasting process, so that the loss may be made good. It is indeed not desirable to arrest this passage of earth material to the sea. So far as that passage is here and there effected by natural processes we find that, in time, the soil loses its fertility because the necessary mineral constituents are exhausted. Thus in the case of the coal-beds, the swamp-bottoms in which the plants grew did not have their materials renewed by the decay of the underlying rock and so were in time exhausted by the drain upon them and became too unfertile to maintain vegetation. The preservation of the food-giving value of the soil as used by civilized man depends on the efficiency of the means by which he keeps the passage of the soil to the sea at a rate no greater than that at which it is restored by the decay of the materials on which it rests.

Some of those who have essayed a forecast of the future of man have felt that the prospect was shadowed by a doubt as to

his permanence as a species. Seeing, as we do, that the life of this earth is characteristically temporary, the species of any geological period rarely enduring to the next, it is a natural conclusion that our own kind will share the fate of others, and, in a geological sense of the word, soon pass away. Closer attention to the matter leads us to believe that the *genus homo* is one of those exceptional groups, of which there are many, which have a peculiar capacity for withstanding those influences which bring about the death of organic groups. There are a number of such forms in most of the classes of animals, creatures which have existed, it may be, from palæozoic time, perhaps for fifty or more million years, so little changed that the earliest of them seem as nearly akin to the latest as are the diverse species of mankind. Man has been upon the earth certainly for two geological periods. He withstood the colossal accident of the last glacial epoch. He is by his intellectual quality exempted from most of the agents that destroy organic groups. So we may fairly reckon that he is not to pass from the earth in all foreseeable time, but is to master it and himself for ages of far-reaching endeavor. The limits set to him are not those set by the death of his species, but by the endurance of the earth to the demands his progressive desires make upon it.

We have already glanced at certain of these limitations in the future development of man in the extent of his present and increasing demands on the resources of the soil and the under-earth; before going further, let us consider what is the probable number of men that will have to be provided for, say, within three centuries to come—a future as remote as the past of our American history. At the present time the human population of the earth is somewhat variously estimated at from thirteen to sixteen hundred millions, the reckoning of the number in China and Africa is uncertain. It is most likely near the higher of those figures. The gain in three centuries has probably been at an average rate of near a million a year, and, at the present time, is very much greater. So far as we can see, this increase has been altogether among the peoples who have attained to the condition of civilization, with the consequent partial exemption from pestilences and the evils of chronic war.

As the control of modern conditions extends, either by the spontaneous development in the retarded peoples, as in China, or by the conqueror's hand, as in India and Egypt, we may reckon that this growth in population will increase. There is indeed danger that with Africa and China modernized, the rate of increase will, by the end of the present century, be many times as great as it is at present. In a word, we may reckon that in a historic sense very soon the world will be near its food-producing limit. As to the numbers of our *genus* who will be demanding subsistence at the time when the ultimate of the earth's sustaining capacity is attained, no very precise determination can be made, yet a fair general idea of it may be had by considering the existing conditions in certain of the best-known regions. Thus in Europe it is evident that an increase of one-half in the existing total cannot be accomplished without a great and practically inconceivable reduction in the standards of life of the people. The evidence of diminished birth-rate, as in France, leads to the conclusion that an unusual decrease in that rate will occur before there is any considerable abasement in the conditions of the folk.

In North America, the soils of the first order, those easily appropriated and affording large returns to tillage, have already been generally occupied. Further subjugation will have to be gained either from forested areas of the second and third class, where the soil will give relatively low returns to labor unless it is brought up to more than its natural fertility by a care which we are at present indisposed to give lean fields. Thus developed there are land reserves on this continent now in upland forests which may afford subsistence to twice or thrice the existing population. In this reckoning no account is taken of the large unoccupied areas in northern Canada, which, it is claimed, are well suited for permanent tillage. There is as yet doubt whether this district, owing to the limited range of the crops which can be grown in the very short summer, and the tax of the long-continued winters, will prove well fitted for the continuous uses of civilized man. Should they be found thus serviceable we may add enough to the store of immediately available land to subsist from twenty to fifty million people.

In South America, the unoccupied lands which can be brought to use without engineering work appear to be sufficiently extensive to maintain in the tropical and sub-tropical conditions of that continent a considerably greater population than can be supported by the soil of North America. It is not unlikely that these tropical available lands could be made to support four or five hundred million folk on a standard of living quite as high as that now attained in India or China. By far the greater part of this population will dwell within the tropics, a region evidently unfitted for the development of what we esteem as the higher kind of man, but they will have a fair share of the earth.

In Africa the conditions are very like those of South America. There is a very large area of tropical land which is scantily occupied by peoples of the lower sort. These folk, however, differ from the aboriginal peoples of the American continents in that they are fitted by nature for agricultural labor and can readily be made to work in an efficient way. Under the control of the masterful European states Africa is likely to afford room for a population of not less than five hundred million, of whom the greater part will necessarily be of the negro and Arab stocks, and this without reckoning the lands which may be won by engineering work from the deserts or the morasses.

In Australia and the islands of the Pacific realm, there is relatively little unused land which can be turned to account; in the humid tropical areas the population is generally well adjusted to the resources, and in the arid the opportunities for extended irrigation, though considerable, are not very great. It seems questionable whether room can be made in these lands for more than an additional fifty million folk.

There remains to be considered the great continent of Asia. In this ample realm, we find the population of all its fields south of Siberia in general pressed up against the limits of the soil resources. There is some room for gain in the region of the Twin Rivers and the Kahnates, but it is doubtful if without very extensive engineering work room can be made for another hundred million folk in the valleys which drain to the Pacific and the Indian oceans. The Arctic slope of the continent is the only

field where there is an extensive unoccupied area which has conditions that promise to support a large additional population. The value of this district for the uses of civilized men cannot well be estimated with the information concerning it which is now in hand: it is subjected to the same, or even more, doubt as that of the country of northern Canada. The greater part of it lies, like much of the land in sub-arctic Canada, in the region of permanently frozen sub-soil, only the upper foot or two sharing in the brief summer, so that the soil cannot be washed from below. That much of it is fertile and will for a time produce crops of small grains, roots and forage is evident; but it all is afflicted with a long and very rigorous winter when water for man and beast has to be obtained by melting ice or snow, and the consumption of the stored food is very great. Moreover, there seems to be an insufficient supply of coal to serve even for domestic purposes, and in many parts of the country the resources from the natural timber are insufficient to meet such needs. Except where peat occurs, it is likely that the people will have to resort to the practice of burning the dung of their domesticated animals, and we know from the experience of western Russia how fatally and swiftly the fields are exhausted by this practice. Those only who are very optimistic will be disposed to reckon on an increase in the population of Siberia that will add one hundred million to the total of the Asiatic continent.

The foregoing glance at the conditions of the lands which are now open to the increase in population which has to be expected within two or three centuries, may be taken approximately to show that, at most, there is enough to admit of something like a doubling of the present numbers. That without any considerable engineering work in lands not now available for tillage a total of somewhere about four thousand million can be supported in tolerable comfort. The question arises as to the additional food-giving capacity of the earth which may be won by means of engineering and other scientific work, as in irrigating arid fields or draining those which are excessively watered, or by improving the methods of fertilizing soils now in use.

It is impossible, with the present lack of information, to de-

termine accurately how extensive is the field which may be won to tillage by the work of the engineers: this winning from the excessively arid lands will be done by irrigation, and from the morasses, the fresh-water swamps, and the marine marshes by drainage. In Europe the larger part of the land thus winnable has long been brought to use; it is not likely that an increase of ten per cent. in the food-giving capacity of its soils can, by any known means, be realized. In the less developed continents the gain is likely to be much greater. Thus within the limits of the United States the writer has estimated that the fields improvable by drainage in the manner already applied in Holland, would add to the tillable ground of the country an area somewhat exceeding one hundred thousand square miles in extent, with a food-giving value about four times that of the State of Illinois, wherein the soil would be far more enduring than that of any upland district. The complementary process, that of irrigation, promises to afford yet larger gains, including the area of the South and the Middle West where the system would greatly increase the food-giving value of the soil; we may reckon the possible enlargement from it would be even greater than that afforded by a complete drainage of the morasses. Taking the continent of North America as a whole, it seems probable that the existing capacity of its soils for feeding men may be doubled by the work of the engineer, through his skill in watering and unwatering its deserts and morasses.

On the other continents the opportunities for winning good land from arid deserts are probably less than in North America, yet the possible gain is such that we may reckon that when his great work is done, the engineer will have recovered land enough to feed the existing population of the earth. In Africa there is the magnificent problem of the Nile, a river which wastes to the sea in its annual floods water enough to fertilize tenfold the desert that it now makes fertile. There is the valley of the Twin Rivers of Asia, where a realm once fertile has become a waste by the loss of its irrigation works. There are in all the great lands vast areas of lakes, swamps and marshes awaiting the skilful labor which has won Holland from the sea. The largest opportunity

of profit is in such brave combats with the incomplete work of Nature.

The problem of how we are to maintain the fertility of the soil when the earth is taxed by a population thrice as great as it now supports, depends upon our ability to restrain the excessive rapidity with which tilled soils pass to the sea, and our ability to restore to the land the materials which the cultivated plants remove. We shall find that both these needs are fairly to be met by the resources of modern science; the first by a proper control of the movements of water from where it falls upon the land to its station in the ocean, and the second by a resort to the ocean and the underearth for the materials to renew the fertility of the ground when it is exhausted by cropping. There is much to do in order to make the earth fit to bear the life to come, but there is every reason to believe that our science is ready for the task and that within two centuries of peaceful endeavor we may prepare the place for it. Some of the steps of this preparation will be considered in the following papers of this series.

THE VIENNA CONGRESS, 1814 TO 1815 AN HISTORICAL SKETCH

AUGUST FOURNIER

GOETHE once said: "The Vienna Congress is not a theme for a story, because it is without form." And there is much truth in that. We possess to-day no scientific monograph concerning this congress which revised and fixed for a long period the map of Europe, and for the first time discussed questions, like that of the Emancipation of Slaves, destined later to affect strongly the minds of men. There is certainly no lack of publications, of documents, notes and protocols, which arose out of the proceedings, of weighty reports like those of Prince Talleyrand to King Louis the Eighteenth or of the Count Muenster to the Prince-Regent George of England or of the Herr von Gentz to the Prince of Walachie, of diaries like that of the Freiherr von Stein, of private letters like that of the German-American Justus Erich Bollmann; but all this material is still very defective, because a personal association of the determining personalities with one another very often rendered superfluous written communications. On this account the later writer of history remains quite in the dark about the proceedings behind the scenes. But luckily the archives, especially those in Vienna, preserve many an unknown episode, by means of which the present gaps may be filled up at least in part; and it is to be hoped that sooner or later the Vienna Congress will receive a treatment which will satisfy scientific demands. That interesting proceedings and personalities are concerned, this short sketch will perhaps be able to prove.¹

The Congress brought to a close a great epoch in the world's history. From April, 1792, until April, 1814, there had been waged in Europe, with few interruptions, a war which had arisen out of the contest of two great political problems. The French Revolution had not contented itself with simply freeing the French from the yoke of absolute sovereignty and from the burden of

¹ Single new facts and particulars hitherto unknown are taken for the most part from the Vienna archives.

feudal and ecclesiastical privileges, with giving to them a share in the legislation and government of the land and with making every citizen equal before the law: it had also spread out beyond the borders of France in an effort made by the elementary power of a rejuvenated popular force to carry to other peoples its gains as "universal rights of man," which had been borrowed from the constitutions of the free states of North America. These gains rested upon the great doctrines of the "Aufklaerung" (enlightenment) of the eighteenth century; and these doctrines conceived of mankind as a whole, they were cosmopolitan, international and without bounds. International and boundless was also the system of conquest which only too soon grew out of that of the emancipation and which in the hands of a soldier of genius like Napoleon Bonaparte attained prodigious success. The revolutionary empire soon spread itself over Romance, Germanic and Slavic populations. It reduced Italy and Switzerland to entire dependence. It drove the Pope from Rome and the Bourbons from Naples, where in the end a brother-in-law of Napoleon, Murat, ascended the throne. It dethroned the hereditary princely houses of Spain and Portugal. It conquered not only all Germany upon the left bank of the Rhine, it shattered also the old Roman Empire of German nations and created side by side with the greatly reduced powers of Austria and Prussia, a third German state, the "Rheinbund" ("Rhine Confederacy") of the smaller principalities which were in a condition of dependence and vassalage. The successful wars of 1806, 1807 and 1809 extended the range of its power far into the east, even in Carinthia and to the Save, in the north as far as the Weser and the Elbe. A duchy, Warschau, was created under the national government out of the Polish claims of Prussia, and this was increased in the year 1809 by the Polish Territories of Austria. Holland was subject, Belgium had long been incorporated, when, in the year 1812, Napoleon made the effort to bend Russia to his will, in order to divide off the whole European continent against England, and in this way to ruin economically his greatest opponent. Then, the giant army which he led to Moscow was a mixture of all the West European peoples. They stood together in the armed service of a great world-encompassing energy.

These peoples bore only under protest the yoke which limited so strongly their individuality and their independence; and, when the great undertaking of the Emperor failed of success, when his power met a decisive blow on the icy Steppes of the North, then national defense arose against universal conquest and won the victory. The war of emancipation threw France back into its own national boundaries; and the peace which the combined powers, England, Russia, Austria and Prussia, dictated in Paris on May the 30th, 1814, decreed that henceforth France should have the same extent as in the year 1792 before the Revolution. Concerning the restoration of the conquests and the creations of Napoleon, a decision must be reached at a European Congress in Vienna, which would come together within two months' time on the first of August. The Empire disappeared and, with it, the Emperor. He sank from his proud height down to the position of sovereign of the small Island of Elba, who received an income from the French King, Louis the Eighteenth.

The Congress did not meet on the first of August. At the court of the Emperor Francis the First of Austria preparations had already been made to receive the foreign guests, when the information came that the English minister, Lord Castlereagh, was detained by the proceedings of Parliament and also that the Emperor of Russia, Alexander the First, wished first to travel to St. Petersburg. The opening of the Congress was postponed to the first of October. But, although monarchs, ministers and diplomats had already arrived in Vienna in September, the time was not adhered to, but put off to the first of November. Finally the gathering of the representatives of the European powers was not opened at all. The political affairs were either passed from cabinet to cabinet or divided among a number of commissions; the result of the counsels was finally comprised in one act which the representatives of the eight chief powers, Austria, Russia, England, France, Prussia, Sweden, Spain and Portugal, signed on June the 9th, 1815. The reason why there was no formal opening of the Congress lay in the stipulation of the Paris treaty of peace that this congress should decide "upon plans which should be arranged with one another beforehand by the four allied powers —England, Russia, Austria and Prussia."

In accordance with this clause, the representatives of these four powers actually gathered in Vienna as early as September, 1814, in order to unite upon the weightiest questions. But they were not successful in this. They continued to differ more and more, and their opposing ideas embittered them almost to the point of war.

The questions which were submitted to the diplomats of the chief powers were numerous. It was necessary to make an arrangement concerning the German land upon the left bank of the Rhine, and at the same time, because the Rheinbund had been dissolved and the old composition of the kingdom no longer existed, to draft a new constitution for Germany. In connection with this arose a question whether there should be a unified confederate state or only a confederacy of states. The King of Denmark had remained true to Napoleon; for this reason he had lost Norway to Sweden, Hither Pomerania to Prussia, Heligoland to England and received for these only the small duchy, Lauenburg. Should that form his entire indemnity or should Frederick Christian be granted more? He hoped for more and therefore traveled to Vienna. England had conquered the chief Dutch colonies in the naval warfare against Napoleon, and she wished to retain them. The restored Holland should receive Belgium as compensation. Now there was in Belgium one party which wished to belong again to Austria as in the times before 1792, and another which wished to remain independent; but none which wished to be united with Holland. The question was difficult enough. But it was still more difficult to determine what to do with King Murat of Naples. In the year 1814 he had attached himself to the opponents of Napoleon, and for this his throne had been assured him. But, before the conquest by France, his throne had belonged to a Bourbon dynasty, and Spain and France, where the Bourbons were again in power, insisted that Naples should fall again to this family, according to the principle of "legitimacy,"—that is, according to the right to rule of the hereditary princely house. But Pope Pius the Seventh had again returned to Rome, and the papal state had been restored, with the exception of three provinces, the "legations" Bologna, Ferrara,

and Romagna. Upon these Austria, which now had come into possession, in upper Italy, of Lombardy and Venice, had long cast a covetous eye. But the Pope wished to regain his provinces. The Italian duchies, Parma and Piacenza, had been assigned in Paris to the ex-Empress, Marie Louise. Before the Revolution the lands had had a Bourbon government, and a Bourbon family now laid claim to them. The former republic of Genoa had been incorporated by Napoleon into France, just as Piedmont had been. Now both territories were free. The legitimate ruler, the King of Sardinia, received Piedmont again, but he wished also to acquire Genoa, while here (in Genoa) a strong independence-party desired from Congress the independence of the country. In Germany, Bavaria must restore to Austria the Tyrol, Salzburg and the upper Austrian Inn region. In what way could she be recompensed? In the year 1806, when the Rheinbund was established, a whole class of small German princes had lost their land and had been "mediatised." Now they desired their sovereignty—a desire that had little chance of being realized, because their territories were already merged in neighboring states. In Switzerland the old patrician families in the cities, which had yielded their rule to the democratic party, strove for a new constitution favorable to them and appealed to the Congress. England presented the question of the emancipation of slaves and touched in this way the colonial policy of Spain and Portugal, which opposed it. Navigation on the Rhine must be regulated by law. The diplomats desired a new and firm order of precedence of the representatives of the states.

All these questions would not, however, have divided the four chief powers. The Saxon and the Polish questions, which were closely associated together and touched the interests of the three Eastern powers of Europe in contrary wise, produced the split among them.

What should become of Saxony? The King, Frederick August, had belonged to the Rheinbund and in 1813 had neglected to join the Allies. He had remained true to Napoleon until the Battle of Leipzig, and had then been carried, as a prisoner of war, to Prussia. His land was now without a monarch. Should it be

given back to him? The principle of Legitimacy was in favor of that. Or should it be regarded as a conquered country? This was the wish of Prussia's king, Frederick William the Third, who desired to annex the whole of Saxony. This wish of Prussia was closely connected with the other question: What should become of the Polish duchy of Warschau? The Czar of Russia desired this wholly for himself, at once as a reward and compensation for his act of not contenting himself with the defence of his own kingdom, but, on the contrary, using his army for the emancipation of the rest of Europe from the sovereignty of France. He had already occupied the land with his troops and now busied himself with the plan of uniting it with the rest of his Polish provinces to a national kingdom, Poland, under his sway. Because the duchy had been composed in the main of the Polish regions of Prussia, the Czar Alexander had, as early as the year 1813, declared to that power that he was ready to assent to his friend, Frederick William the Third's, indemnifying himself with the whole of Saxony.

This arrangement was, however, quite opposed to the interests of Austria. The court of Vienna, years since, had perceived with ever increasing anxiety how Russia, while the other states of Europe were suffering sensible losses in the war with France, was aggrandizing herself with Swedish Finland and with the regions of Turkey. If, now, the Czar should yet further strengthen himself so greatly, the existence of Austria appeared to be threatened from the East by Russian supremacy as it had been on the West by that of France. It was considered particularly that a national Poland, at the border, would surely have so great a power of attraction for the Polish territories of Austria that the province of Galicia could hardly be held longer. It would be better to allow the old Poland, as it had been before the first partition in the year 1772, consequently quite independent of Russia, to rise again—a thought which found accord, especially in London, but was violently rejected by Alexander the First. On the other hand, the acquisition of Saxony by Prussia was also a disadvantage for Austria, because in that way her mighty rival in Germany was not only strengthened by a purely German territory but also acquired,

by being brought immediately to the Austrian borders, the advantage for making an invasion at any moment.

What was to be done? In Viennese political circles opinions were divided. The directing Minister, Prince Metternich, beheld in Russia the greater danger and was ready to permit the whole of Saxony to fall to Prussia if this country would only oppose energetically Alexander the First's plans of Polish annexation. He intended through a Dreibund (triple confederacy) of Austria, Prussia and England to hold in check the supremacy of Russia. For this purpose he had been in London during the summer and had there won over the Prince Regent to his plan. Another view, however, was held by other Austrian statesmen who laid greater weight than Metternich upon Austria's position in Germany and for this reason beheld in her rival, Prussia, the more dangerous opponent. This was a course which had been earlier represented by Kaunitz and then by Thugut and which now found its leader in Count Stadion the predecessor of Metternich in the ministry of the exterior. Moreover, the party of the Generals, Prince Schwarzenberg at their head, favored, for strategical reasons, the preservation of Saxony. Finally there was also at court a party friendly to Saxony: the oldest sister of the Emperor Francis, Princess Therese, wife of Prince Anton of Saxony and sister-in-law of the King, had come to Vienna and daily besieged her brother with prayers for the preservation of the Saxon throne. But Emperor Francis allowed himself to be prevailed upon by Metternich because the leading minister of Prussia, Prince Hardenberg, and certain prominent councilors of state, who attached great value to the possession of Poland, were of the same opinion, namely, that Russia's encroachments must be resisted.

On the 22d of October the Austrian and the English Cabinets directed notes to Prussia which granted to that country the whole of Saxony under certain conditions; and, on the 28th, Prince Anton wrote to the imprisoned King that things looked very dark, because the Czar Alexander demanded his abdication, England assented and Austria was too weak to gainsay it. But scarcely a week later the outlook had improved. The party which opposed the plan of Metternich won the upper hand at the court of Vienna, chiefly be-

cause the representative of France, Prince Talleyrand, declared himself for the imprisoned King and succeeded in winning an intimate personal friend of the Emperor, Count Sickingen, and, through him, the monarch himself for the preservation of Saxony. By November the 6th, Prince Anton was able to announce that the condition of affairs had been for some days more favorable to the King. On the other hand, the position of Metternich was no enviable one, and indeed in the Salons men were already speaking of his impending dismissal. Then the King of Prussia aided him. The King, who was strongly under the influence of Alexander the First, disapproved, in a conversation with his chancellor, Hardenberg, on the 5th of November, of the position of that minister on the Polish question, and advised him not to work against the plans of the Czar by separating himself in the question of Poland from England and Russia. Hardenberg, who for the moment feared dismissal, obeyed, and, with this turn of the Prussian policy, offered to the Austrian minister the desired opportunity of extricating himself "from the mire," as Metternich familiarly expressed it. Now he was able without compromising himself to retreat from his previous position in the question of Saxony. In repeated conversations he declared to Prince Hardenberg that Austria held herself no longer bound by the concession of October the 22d, because the demanded condition had not been adhered to; and, in an official communication of the 10th of December, Austria was ready to grant to Prussia in return for the lands on the left bank of the Rhine and other compensations merely about a fourth part of Saxony.

In the Prussian camp there was great excitement over this. The Prussians had already occupied the whole of Saxony and wished now to retain it. And because Czar Alexander supported his friend in this wish, very categorical explanations were arrived at. Prussian generals arrived in Vienna to consider a plan of war against Austria. This country, in turn, found allies in France and England, where public opinion expressed itself in behalf of the imprisoned King of Saxony, so that on the 3d of January, 1815, a secret defensive league was formed between the three powers.

The new year began accordingly with generally threatening symptoms.

Under the pressure of the turning of England to the side of Saxony, and because he feared for his popularity in a war occasioned by his cupidity, Czar Alexander moderated his demands and desired only about half of the duchy of Warschau for Russia, while he agreed that Prussia should receive the land of Posen and the district of Thorn, and Austria the salt mines of Wieliczka and the region of Jarnipol. By this action, the claims of Prussia on the whole of Saxony lost ground, and, when Austria agreed to the annexation of half of the Saxon country by Frederick William the Third, the King declared himself satisfied and was finally glad to have come out of the crisis with so much. Frederick August, who, after all, had saved his throne, made no further difficulty after the important city of Leipzig was preserved to his rule.

This solution of the two most important questions, in which very little stress was laid upon the wish and the opinion of the people whose fate was decided, was completed in the early days of February, 1815, and thus the greatest difficulty was overcome. When it was learned at Vienna, on the 6th of March, that Napoleon had escaped from Elba, this news found the powers already reunited, and their union was now still further strengthened. Up to this time almost all the other business of the Congress had rested under the pressure of unsure relations. Now it was taken up again with so much the greater zeal and as quickly as possible ended.

The German Comité had come rather smoothly to an end with the territorial compensations of the several Princes; on the other hand the constitutional question caused much perplexity. The smaller Princes desired the Bundesstaat (the confederate state) with the Hapsburg Emperor,—an idea which was also favored by Freiherr von Stein, who, at that time, desired his dismissal from the Russian political service: the greater Princes, especially the Kings, desired a confederacy of states without an emperor. Francis the First decided for the latter, and he refused the imperial crown. The German confederacy of the year 1815 was destitute of all unified national power and, neither within nor without, could

give value and credit to the German name; it had already existed far too long when it fell to pieces in 1866. Holland was now indeed, out of regard for England, combined with Belgium into one state—an arrangement which only led to a continual strife between these two totally unlike peoples who, in 1831, actually separated by force from one another. The Pope obtained his three provinces again, because this reactionary time, in which romance grew into politics, was favorable to ecclesiastical restoration. Parma and Piacenza came definitely to Marie Louise; but if she, as well as her son, the “King of Rome,” as he was earlier called, were promised the succession in the duchies, that promise was never kept. Switzerland acquired a much looser construction than under Napoleon the First, which has later avenged itself in civil wars. The King of Denmark went away empty-handed, and also the German mediatised Princes remained uncompensated; on the other hand, Genoa went to Piedmont. When Napoleon again sat upon the throne in Paris, the concession was made to Murat that he should hold Naples, if he would again attach himself to the coalition; but he took the part of his brother-in-law, and for that forfeited his country, which fell again to the Bourbon, Ferdinand the Fourth. In the slave question England could not carry through emancipation, in opposition to Spain and Portugal, and the conflict remained undecided. On the other hand, in the question of international navigation, an harmonious binding conclusion was reached: navigation upon the rivers of Europe was declared free. Finally, at the proposition of Talleyrand, an order of precedence of the diplomatic representatives was determined upon, according to which there should be three classes, “ambassadors,” “envoys” and “*chargés d'affaires*.” Between the envoys and the *chargés d'affaires*, the Aachen (Aix Congress of 1818) inserted “resident ministers.”

In the main features, this was the substance of the piece that was played upon the world's stage in Vienna between the middle of September, 1814, and the middle of June, 1815. It remains only to say a few words about the most prominent actors and about the setting, perhaps also to allude at the close to the Fire-watch.

The foreign sovereigns, with the exception of the Kings of England, France, Spain, Portugal and Sweden, who were all kept away by weighty reasons, and of the Sultan, on whose presence nobody counted, because Turkey had no immediate share in the process which was here carried out—the foreign sovereigns had not come to Vienna to remain for long, because it was the general opinion, before the Congress met, that it would be brought to an end in a few weeks. Now nine months had passed. Emperor Francis the First, who disliked every public display of his person, played, in spite of that, the host with equal dignity and joviality, and especially with a lavishness which was universally applauded. The most prominent monarchs, like the Czar of Russia and the King of Prussia, resided in the Hofburg; for the others, palaces or dwellings were hired; and not only the Princes but their numerous suites as well were the guests of the Vienna Court. The daily expenses were reckoned at fifty thousand gulden (twenty thousand dollars), some estimated it at double that sum; in any case, at that time a large amount of money for a poor state with bad finances. The Emperor of Austria was assisted in doing the honors by the Empress Ludovica (v. Este), to whom Goethe had paid homage in several of his poems, and who now stood at the centre of the numerous festivals which the court offered to its guests. The Crown Prince Ferdinand, the later Emperor, who was already afflicted by his incurable nervous complaint (epilepsy), appeared but little in public.

Among the chief guests, Czar Alexander the First took unquestionably the first place. He was at that time a man of thirty-eight years, at once high-minded and petty, enthusiastic and cunning, a remarkably mixed character; in addition he possessed a richly endowed mind, so that he for the most part discharged his business in person. Napoleon said of him at Elba: "One has no conception how false he is." Alexander was vain and strove eagerly for popularity, he had excellent manners, was an ardent dancer and an agreeable converser, with which accomplishment a slight deafness interfered a little. He passed for a handsome man and thought himself one. An adjutant had to journey to Vienna to get a hat for him, so that he could appear here with

new headgear. Also the secrets of his toilet did not escape notice; for instance, it was learned that every morning a piece of ice must be brought to him, with which he rubbed his body. The Empress Elizabeth, who had come to Vienna at the same time, did not receive from him proper treatment, which troubled greatly the timid and mentally insignificant woman. She was the more distressed because the declared mistress of Alexander, the Countess Narischkin, was also present at Vienna, and because his banker, Herz, soon followed thither, with whose wife the Czar was also in close intimacy. His nightly visits to the Countess Bagration, the thoroughly frivolous widow of a famous Russian General, were probably less on account of the lady than of politics, because the Countess was a very clever political intrigante. Among the ladies of Vienna society, the Czar distinguished especially the beautiful Princess Gabriele Auersperg, without giving to her or to any other of the Vienna beauties serious proofs of his homage. In the case of his brother, the Archduke Constantine, the veneer of good manners was not so evident. This young gentleman played many pranks without showing very much discretion in them; for example, he would alarm at midnight the watch of the imperial castle and would almost kill himself laughing over the results. Far more dignified, gifted and energetic was the elder of his two sisters, the Archduchess Katharine, the widowed Duchess of Oldenburg, of whom Napoleon had once thought as a wife for himself, without being able to obtain her. She was spoken of as the future wife of Archduke Charles, the victor in the battle of Aspern, who was courting her. But this marriage did not take place because Katharine had already fallen in love with the Crown Prince of Wuerttemberg. This Prince afterwards separated from his wife, a Bavarian Princess, in order to marry the Archduchess; but the Bavarian Princess, Carolina Augusta, became later, after the death of Ludovica, Empress of Austria.

The warmest adherent of the Czar was King Frederick William the Third of Prussia, who believed that he had to thank him for the restoration of his state. The King was accustomed to express his regard in public, if the two monarchs were walking together, by allowing the Czar always to go on his right and about

a half a step in front. The King, who was about the same age as Francis of Austria, was of a sober, morose nature which hid its want of firmness behind an abrupt military tone. Napoleon said of him: "He regards himself as a sage, but he is only a corporal, and yet a very good sort of person." He was, at any rate, a thoroughly honest and loyal man, faithful and trustworthy, and on that account he was soon rightly esteemed by everybody in Vienna. After the death of his beautiful and gifted wife, Louise, few things could appeal to him. Now in Vienna there were two things which could: the beautiful Countess Julie Zichy, to whom he paid court continually, but in all honor; and "Staberl," a comic figure on the stage of the Leopold City Theatre, where the King was far too willing to spend his free evenings. Two Prussian Princes, who had come with him to Vienna, William and August, were regarded here as eminently tedious, without any further marks of distinction.

King Max the First of Bavaria was a jovial person who in his speech was usually somewhat coarse and obscene. He had been before the Revolution a French officer, and since that time had always remained a zealous friend of France. For this reason he was a violent opponent of Prussia and of her claims in Saxony, and his agent in London, Pfeffel, boasted of having changed the public opinion of England in behalf of Saxony. His son, Crown Prince Louis, was also present; he was the same person who later, as king, became celebrated for his love of art, his romantic poems, and his misplaced passion for the dancer, Lola Montez. On account of his sister, he became engaged in Vienna in a violent quarrel with the Crown Prince of Wuertemberg, who challenged him to a duel. The meeting, however, did not take place.

King Frederick the First of Wuertemberg had also come to Vienna, where he remained until December. He had the reputation of being a very keen-minded but very passionate and tyrannical prince, to whom, moreover, unnatural inclinations were ascribed. For this bulky monster, a piece had to be cut out of the table at which he sat at court-dinners in order that his corpulency might have sufficient room. Between him and his son, the Crown Prince, there existed an inextinguishable hatred, which, indeed,

was the reason why the King, after his return, gave a constitution to his country. He wished by this means to tie the hands of his successor, and at the same time, to provoke the personages in Vienna who had turned to him the cold shoulder.

King Frederick Christian of Denmark consoled himself for the hopelessness of his cause by plunging into the life of the Vienna people; and many stories were told of his nightly wanderings in the suburbs, where he soon was popularly known as a "right good fellow." King Alexander was able rightly to say to him, when he left Vienna in March, that he carried all hearts with him; whereupon the Dane made the ready reply: "But unhappily not a single soul."

The Archduke of Baden, Charles, the husband of Napoleon's adopted daughter, Stephanie Beauharnais, a misanthropic, sickly young man who was destined to take possession of the legacy of Austria in Swabia, had come to Vienna, only to obtain the certain knowledge that, at the imperial court, these regions were really no longer considered. Of this he was not quite sure when he journeyed back again, without anyone lamenting his departure.

The friend of Goethe, Duke Carl August of Weimar, had also appeared at the Congress, in order to turn to his account the annihilation of the kingdom of Saxony. His hopes were fulfilled, but only in greatly diminished measure. But he advanced thereby to the title of Archduke.

Napoleon's step-son, Eugene Beauharnais, a son-in-law of the King of Bavaria, and at that time Viceroy of Italy, had come to Vienna with the hope of obtaining for himself an Italian principality; and Czar Alexander seems to have fostered this hope at the time of the crisis. In any case, the two became almost inseparable. But when the quarrel with Austria was over, and when finally Napoleon appeared again in France, the Czar abandoned his friend, who, thenceforth, was forced to content himself with the title of Duke of Leuchtenberg.

Apart from the festivities of these royal guests there lived, in the palace of Schroenbrunn, near Vienna, Marie Louise, who, only a few years before, had seen a world at her feet, and who now had no higher aim than to preserve for herself, out of the

ruins of her power, the small duchy of Parma. Politics, which had given her in marriage to Napoleon, now separated her from him. A dawning inclination for the Count Neipperg, whom she married later, caused her to forget completely her husband, and his letters from Paris remained unanswered. She was a woman with no ambition.

Of the ministers who accompanied their sovereigns, the Russian Count Nesserode was not one of the most important. He appeared like a subaltern in the way that he served the uses of the Czar: in the beginning he was friendly to Austria and opposed to the Polish plan of his master, while the Russian ambassador in Vienna, Prince Razumowsky, supported the Polish plan, as did Prince Czartoryski, the plenipotentiary of the Poles. Of Freiherr von Stein, who, at that time, was also in the Russian service and kept warm the relations of Prussia and Russia, we possess the diary records, which form a weighty, if not always an adequate, source of our knowledge of the Congress. More prominent than the Russian were the German representatives. Prince Hardenberg, the Chancellor of Prussia, was a clever old man who very dexterously kept the midway ground between the ultra-conservative King and the radical-national "Vorwaerts" (forward) rushing patriots. On account of his defective hearing he was given, as a colleague at the conference, William von Humboldt, a man of the highest intellectual gifts and of a culture which he had acquired by intensive studies, by countless journeys and sojourns in France, Rome and Spain, and by association with prominent men, for example, Schiller. He had been the Prussian minister of education, and, as such, had founded the University of Berlin; later he came as envoy to Vienna. He was an enlightened spirit, a moderate Liberal like Goethe, inaccessible to the errors of Romanticism, inaccessible also to the deeper human emotions. Only his high regard for science and all beautiful things reconciled men to his coldness of heart and his cutting sarcasm. Designs upon Hardenberg's position were ascribed to him. In any case, he stood at that time nearer than the Chancellor to those who wished to unite Germany under Prussian leadership, and he also assumed, in the question of Saxony, a sharper attitude toward

Austria. The Minister of Bavaria, Count Montgelas, had not come to Vienna. Affairs were managed by the Field Marshall, Prince Wrede, who, however, lost much by his bold arrogance. Prominent on account of his personal attractiveness was the Danish Minister, Count Bernstorff, who, like his King, won for himself all hearts. We are indebted to his wife for very interesting records of the Congress.

The monarchs who remained away had sent their ministers; and among these was the representative of France, Prince Talleyrand, who was rightly considered the most important diplomat of Europe. It was a long time since he had allowed himself to be bribed by millions, and had been called by a mocker "a silk stocking filled with dirt." He possessed the gift of perceiving, sooner than others, the insecure position of a government; he accordingly abandoned the Directory and Empire and then zealously worked for their downfall. While in Vienna he expressly advised his King to have Napoleon carried from Elba to the Azores, to St. Helena, or to some other remote place, and, if that was not done, it was certainly not his fault. When he perceived at the Congress the quarrel between Austria and the Allies, he knew how to make the political weight of France speedily felt and play a prominent rôle, although the exhausted France was not in the position to support by deeds the big words of her minister. In the beginning, Talleyrand had lived in Vienna in a very retired fashion. He had brought with him his own musician, the composer Neukomm, who often played for hours upon the piano while Talleyrand was working or reflecting. At such moments one would almost have thought that he had feeling, but he had none. Afterwards he became more companionable and was usually to be found at the whist-table, where he was accustomed to play for very high stakes. Because Louis the Eighteenth did not trust him, a Count Noailles was placed near him. The nephew of the famous Archduke of Frankfort, the Duke of Dalberg, was also of the French embassy. On account of his apostasy he enjoyed in Vienna no higher reputation than of a keen cardplayer who knew how to lose much money gracefully.

Besides the French there was also an English colony in Vi-

enna. The Prince-Regent George had entrusted the Minister of Foreign Affairs, Lord Castlereagh, with the representation of British interests. He was a High Tory, who contributed his share to the Parliament in London, but he did not very well understand affairs upon the Continent, although, in the past winter, he had spent several months in Germany and France. He could, for example, confuse unconsciously Wittenberg with Wuerttemberg. Like his brother Stewart, the English ambassador in Vienna, who occasionally fought with coachmen, he occasioned surprise by a somewhat eccentric character. He was accustomed to go everywhere, even in society, constantly arm in arm with his beautiful wife, and this wife was always dressed in the most surprising fashion. When duty called the minister home in February, Wellington, the victor in the Spanish War, took his place and surprised everybody by his simple and open nature. Clancarty and Cathcart looked after affairs. In the British party was also Count Muenster, the minister for Hanover, which at that time was still united with England. He was a rigid Guelph, a zealous opponent of Prussian expansion, and, at the same time, a remarkable observer, whose reports to the Prince Regent the historian may well value.

Pope Pius had sent to Vienna his gifted minister, Cardinal Consalvi, who was never tired of visiting all possible circles, of winning friends for the claims of the Curia, and enemies for the rule of Murat in Naples. He was successful. Spain was represented by the violently passionate Marquis of Labrador; Portugal, by the charming Count Palmela. Both of them swam in the wake of Talleyrand's politics. Count Loewenhjelm represented Sweden, whose Crown Prince, earlier the French Marshal Bernadotte, had somewhat compromised himself in his last campaign, and therefore had not appeared.

In addition to these greater men, there was also a whole army of diplomats and agents; among them important men. Herr von Gagern represented Nassau; Herr von Plessen, Mecklenburg; Jacob Grimm, the famous German philologist, was secretary of the legation of Hesse-Cassel. Not only states, but even separate cities, indeed different districts in these, had their spokesmen at the

Congress. Thus the Jewish community of Frankfort was represented by Baruch, the father of Börne, whose object was to obtain the recognition of certain rights, which the Jews had purchased for ready money from the earlier Archduke; but certainly he did not attain his object.

To these foreign statesmen the honors were done by the Austrians, with Prince Metternich at their head. During the whole time he had to suffer from a personal enmity of the Czar Alexander, who felt himself insulted by the way in which the minister had brought to the knowledge of Hardenberg a conversation which he had had with him, and indeed he thought of a duel. For months the Czar ignored him, and it was not until March, at the news of Napoleon's return, that he offered to him the hand in reconciliation. With Metternich, who was claimed many times by his social duties, was Baron Wessenberg, sometime ambassador to England, who managed the business, especially the German affairs. He also made his opinion felt against the relinquishment of Saxony to Prussia. Frederick von Gentz, the famous publicist, was also intrusted with business: under commission from the eight chief powers, he made, in January, 1815, a draught of the proceedings, and wrote to the Prince of Walachia, Caradja, interesting and remunerative reports about the Congress, which contained much that was correct and also much that was incorrect, for Gentz was certainly not "plenary inspired," as he said of himself.

The court entertained this great official world with all kinds of feasts. There were balls, carousels, sleigh-rides, a night-festival in the castle-park at Laxenburg, a celebration in recollection of the battle of Leipzig, etc. About four thousand persons were sometimes invited to the balls. There were also court concerts, one of which Beethoven directed. He had already won a very large following for his modern music, but he had also many opponents, who would not abandon Gluck and Haydn: society divided itself straightway into almost equal parties, for and against him.

If there were no court festivals, the foreign guests divided themselves among the salons of the residents. On Monday there was a reception at Metternich's, on Thursday at the house of the

Governor, Prince Trauttmannsdorf, on Sunday with the Countess Julie Zichy, etc. There were also political salons, which drew to themselves political parties. Thus the French resorted chiefly to Talleyrand and to his niece, the Duchess Dorothea von Kurland, or to her sister, the Duchess of Sagan, who, with the Princess Bagration, was regarded as the most frivolous woman at the Congress. She and Razumowsky received the Russians. The *spirituelle* Countess Lanckoronska received the Poles. "The mediatised" Princes were found at the house of the Princess Fuerstenberg or at that of Herr von Gagern; the Prussians in the salons of Baroness Arnstein, who was born in Berlin, the daughter of the banker Irzig. Baron Arnstein was also a banker, and, like the banking houses of Eskeles and Geymueller, did a splendid business at the Congress. It is conceivable that these bankers entertained their customers richly. Among the guests of the *haute finance* were frequently Hardenberg, Wellington and Consalvi; and one of the ornaments of these Salons was the intellectual Rachel, Varnhagen's wife, of whom the poet Grillparzer said that her beautiful way of speaking intoxicated him. Very original was the little home of the old Prince von Ligne, an Austrian General, full of wit and satire. It was he who made the oft-quoted remark, "Le Congrès ne marche pas, mais il danse." It may not, however, be known that the great dancer, the Czar of Russia, took him to task for this, whereupon Ligne answered: "Yes, Your Majesty, I may have said that, because it seems to me that it is really so." Hofrath von Gentz also received distinguished guests, who praised especially his excellent cuisine.

Those who did not visit the Salons dissipated in hotels or in the theatres, where one could see and hear the dramas of Schiller, usually in a greatly reduced form, the comedies of Kotzebue, the operas of Mozart or Vienna farces; but the theatres received, soon after the beginning of the Congress, a very effective rival: this was the poet Zacharias Werner, the romanticist, the author of several tragedies of destiny. In earlier years, when he scoffed at Schiller in Jena, he was a good fellow and a boon companion, but now he had become a Catholic priest and was preaching abhorrence of the sins of the world. In his strong feeling he made wry

faces and scourged himself, he set off elevated thoughts by cynical turns of speech—all this attracted so many hearers that the police were stationed before the doors of his church. The noble visitors postponed, on his account, their dinner-hour from four to six o'clock.

There were many other things to see in Vienna. Everyone who had an art to display, a project to present, a talent to turn to account, everybody, indeed, that strove after money and reputation, pressed into the city of the Danube, even the very worst of the swindlers and the wenches. A trustworthy eye-witness informs us that, in October, 1814, a four-wheeled carriage without horses made its way through the streets, and the constructor, who sought a purchaser for his automobile, gave assurance that with this one could travel swiftly or slowly over hills as well as in valleys. Unfortunately nothing more exact is known about the mechanism of this vehicle. Justus Erich Bollmann, the friend of Lafayette and of Talleyrand, famous from the time of the Revolution, had become acquainted in America with the new steamboats and wished to introduce them upon the Danube, but he could not obtain the desired patent. In short, it was an interesting picture of culture that revealed itself at the Congress. A confused throng of a hundred thousand strangers, such as could not be seen to-day.

If we are able to form a still more accurate conception of this crowd we owe it—to the police. They overlooked the whole and nothing escaped their eyes. Indeed, they saw sometimes more than was actually present. The churches and the taverns, the salons and the theatres, indeed wherever a number of men came together, the police were in their midst. Every tolerably prominent official person was under surveillance, and every day the Minister of Police collected reports to put before the Emperor. Thus arose the activity of the "Secret Cabinet," a board of magistrates which, at that time, when a respect for the privacy of letters was not yet current, overlooked the correspondence in the European states. Whatever the post or the express offered in the way of letters of official personages, and all could be obtained from couriers, was "intercepted"—that is, opened, read, copied and forwarded—sometimes the last did not happen. In this regard

the Board was indeed no respecter of persons. The Emperor's own brothers and sisters, the Empress Marie Louise, his daughter, the foreign sovereigns, princes and princesses, to say nothing of diplomats, all were under the surveillance of the "Secret Cabinet," so that important letters must be forwarded by personal conveyance if they were to remain unmolested. Whatever Gentz writes to the Prince of Wallachia, the Archduchess Katharine to her fiancé, Princess Therese to her brother-in-law, Marie Louise to Count Neipperg, is subjected to police inspection; so that certain of these letter-writers invented for their correspondence a kind of word-cipher. Thus, for example, in the letters of the Princess Therese the Emperor Francis is called "Venus," the King of Prussia "Birkenstock," the Emperor of Russia "Pietti," Castlereagh "Althof," Talleyrand "Krumpholz," etc. The Archduchess Katharine invents a peculiar jargon, the deciphering of which has cost the historian much trouble. And not only the finished despatched letters, but also the unfinished conceptions or bits of writing which were intended to be destroyed, interested the police. The paper baskets of the foreigners were searched through by spies. The documents which had been torn to bits were put together and were called "chiffons"; indeed the half-burned contents of the chimney-place made their way to the Board and were zealously—if indeed with only occasional success—examined for State secrets. A large part of these documents has been preserved, and though we may condemn the government methods of a reactionary time, as they deserve, yet it is not to be denied that they now help us to satisfy our interest in things past.

In June, 1815, when the die was cast at Waterloo, the Congress in Vienna separated. Its conclusions were not altered by the war. The nations indeed who had conquered Napoleon's despotic sovereignty had but a little part in those decisions. Neither a unified Italy nor a firmly established German Empire came into being. One counted only the souls without weighing their moral power. But this power of the people could not be permanently suppressed, and has finally won its way to a sense of the ideas of freedom and of national self-assertion. The Vienna Congress and its work have to-day only an historical interest.

LETTERS OF HENRIK IBSEN

Translated by JOHN N. LAURVIK

[The following letters are selected from the English translation of "Letters of Henrik Ibsen," the complete text of which the publishers of THE INTERNATIONAL QUARTERLY announce for early issue in book form. The correspondence covers a period of about fifty years, from 1849 to 1898. Among the persons to whom letters are addressed are King Charles of Sweden, Georg Brandes, Edmond Gosse, William Archer, Bjørnestjerne Bjørnson, with others of international repute, as well as a circle of less celebrated but not less intimate friends. Written during the time of Ibsen's greatest literary activity, and commenting freely on the work in hand, they are an illumination of the inner man that was hardly to be hoped for by the present generation. Much that seems obscure and impersonal in the plays is explained in them, aims and intentions that seemed doubtful are made clear. However self-contained and reserved the creator of "Hedda Gabler" and "John Gabriel Borkman" may have been in social life, in his letters he opens his heart with an almost passionate cry to be understood. The sincerity of purpose, and the indomitable courage with which he pursued his ideals throughout a life filled with the bitterness of misunderstanding, are incontestable. There are in the letters, besides, much wit, humor and characteristic comment on men and events, all uniting by an easy and genial process to resolve the so-called "Sphinx" of modern European literature into an intelligible human personality.—ED.]

DRESDEN, October 28, 1870.

To Professor P. Hansen.

MY DEAR FRIEND: It was with the best of intentions that one Sunday afternoon I received and read your letter. "Within three days he shall have my answer," I thought,—and now nearly three weeks have passed. One advantage, however, is gained by this, namely: that now, because of haste, I must be more brief than I at first intended, and in this I believe you are served, as thereby your hands will be left more free.

By the way, since I saw you I have regretted that I did not get the opportunity to talk with you about these matters; I feel that writing is less convenient. But here goes!

The biographical data you will find in the least distorted shape in a biography written by P. Botten-Hansen, in the "Illustreret Nyhedsblad," for the year 1862, if I remember rightly.

But then, after all, it is the inner story that you want. Here it is:

Everything which I have created as a poet has had its origin in a mood and a situation in life; I never created anything because I had found, as they say, "a good subject." Now I will write chronologically.

"Cataline" was written in a little provincial town, where it was impossible for me to give expression to everything that fermented in me except through mad pranks and riotings, which brought down upon me the ill-will of all the respectable burghers who could not enter into that world wherein I was being tossed about alone.

"Fru Inger til Osteraad" is based upon a hastily entered into and violently broken off love affair, to which several smaller poems may also be attributed, such as "Field-flowers and Potted Plants," "A Bird Song," etc., which were printed in *Nyhedsbladet* (and to which, in passing, I call your attention).

"Harmoendene paa Helgeland" I wrote after my betrothal. For "Hjördis" I have used the same model as I later used for "Svanhild" in "The Comedy of Love."

When I was married my life first became filled with something serious. The first fruits of this were a long poem—"Paa Vidderne." That crying need for emancipation which runs through this poem did not, however, get its full expression until "The Comedy of Love." This book gave occasion for much talk in Norway; people mixed up my personal actions in the discussion, and I lost much in public opinion. The only one at that time who approved of the book was my wife. She is just the kind of personality I am in need of,—illogical, but possessed of a strong poetic instinct; of a broad and liberal mind, with an almost violent hatred of all that is petty. All this my countrymen did not under-

stand, and I did not care to make any explanation for such chaps. Then I was placed under the ban; all were against me.

This, that all were against me,—that there was no longer any one outside my own circle of whom I could say “He believes in me,” must, as you can easily see, have aroused a mood which found its outlet in “Kongs-emnerne.” But enough concerning this.

Just as “Kongs-emnerne” appeared, Frederik the VII died and the war began. I wrote a poem, “A Brother in Need.” It became ineffectual, of course, as opposed to that Norwegian Americanism which had driven me back at every point. Then I went into exile!

When I arrived in Copenhagen Dybbøl fell. In Berlin I saw King Wilhelm enter with trophies and booty. During those days “Brand” began to grow like an embryo inside of me. In Italy, when I arrived there, the fusion of the work was made complete by an unbounded spirit of self-sacrifice, while at home——! Add to this, Rome with its ideal peace, the intercourse with the care-free world of art, an existence which can be compared with nothing so well as the atmosphere of Shakespeare’s “As You Like It,”—then you have the hypothesis for “Brand.” It is a great mistake to suppose that I have depicted the life and career of Sören Kierkegaard. (I have, on the whole, read very little of S. K. and understood even less.) That Brand is a priest is really immaterial; the demand: all or nothing, applies to all phases of life, in love, in art, etc. Brand is myself in my best moments,—just as surely as by self-analysis I have bared to the light of day many of my traits in “Peer Gynt” and in “Stesgaard.”

During the time I was writing “Brand” I had on my desk an empty ale-glass with a scorpion in it. Now and then the little animal would grow sick and I used to throw a piece of soft fruit in to it, whereupon it would fall upon the food furiously and empty its poison into it, and then get well again. Is it not a good deal like this with us poets? Nature’s laws apply in the domain of the spirit also.

After “Brand” came “Peer Gynt,” as though of itself. It was written in Southern Italy, on Ischia and in Sorrento. So far

away from the intended reading public one becomes indifferent. This poem contains much which has its origin in my own youth; for "Aase" my own mother has, with necessary exaggerations, served as model. (Also for Inga in "Kongs-emnerne.")

Environment has a great influence upon the forms through which the imagination creates. Can I not, almost like Christoff in "Jakob. V. Tyboe," point at "Brand" and "Peer Gynt" and say: "See, this was a wine-carouse"? And is there not something in "The League of Youth" which reminds one of Knackwurst and beer? I do not intend by this to accord this play a lower place; only that my point of view has changed because here I am in a community well-ordered even to weariness. What will happen when some time or other I come all the way home! I must seek salvation in a subject that is remote, and then I mean to begin on "Emperor and Galilean."

The choice of the poems to be considered I should prefer to leave to you, in whose judgment I have the greatest confidence, as well in this as in many other respects. The essential parts of various little things are found in the *Illustreret Nyhedsblad* for the years 1858-64.

And with this I have in all conciseness given the required skeleton; it is now for you to clothe the whole with muscles and breathe into it the spirit of life. Use my notes as you please; regard them as a meagre musical theme on which you may freely extemporize. Whichever way you do it I am sure that you will get the most possible out of it; use whatever instruments you please,—I know, of course, "Some fellows play lustily on all instruments."

In closing, I send my heartfelt thanks for your company in Copenhagen! I have returned as from a rejuvenating bath. Thank all our mutual friends for this! Remember me especially to Herr and Frau Bille, to whom I will write later myself; also to Professor Höedt!

Live well!

Your Devoted

HENRIK IBSEN.

P. S.—"Gildet paa Solhaug" is a study which I no longer acknowledge as mine; but this piece had also a personal reason for being.

DRESDEN, June 26, 1869.

To Georg Brandes.

DEAR MR. BRANDES: It has greatly eased my mind to receive your friendly lines; for with good reason I feared that you found me very ungrateful, when I did not have a word for you after you had thrown such light upon my activity as no one else has done. But indeed I am not ungrateful. Surely the important thing is not to be "unconditionally glorified," but to be understood.

When I did not write to you it was because my answer grew in my mind to a whole article on æsthetics. And when I found that this must begin with the question: What is poetry? you must admit that the letter threatened to become rather prolix, and that the subject was best fitted to be discussed in a personal meeting.

"Brand" has been misconstrued, at least as compared with my intention (to which indeed you may answer that the critic is not concerned with the intention). The misconstruction has shown itself to be based on the fact that Brand is a priest, and that the problem is a religious one. But both these circumstances are entirely unimportant. I certainly should have been man enough to construct the same syllogism just as well around a sculptor or a politician as around a priest. I could have found the same outlet for the mood which impelled me to create, if instead of Brand I had, for instance, treated of Galilean—with this difference, of course, that he must hold himself firm and not admit that the world stands still. Yes, who knows but that I might, had I been born a hundred years later, have dealt just as well with you and your fight against Rasmus Nielsen's philosophy. On the whole, there is a great deal more of masked objectivity in "Brand" than any one has so far become aware of, and that I make, *qua* poet, the most of.

In my new comedy you will find the every-day commonplace; no strong emotions, no deep feelings, and above all no isolated thoughts. What you have with good reason reproached me for in regard to the crude speeches in "Kongs-emnerne" has had its effect. Your essay,—and for this you must accept the best thanks

I can give you,—has been the same to me as Mons. Wingård's chronicles were to Jacob V. Thybo; I have read it sixteen times, and sixteen times more, and hope to make it of some use to me "in sundry wars."

But now I am very anxious to hear what you have to say about my new work. It is written in prose, and as a result of this, with a strong color of realism. I have worked out the form with care, and among other things I have accomplished the trick of doing without a single monologue, yes, without a single "aside" speech. However, all this of course proves nothing; and therefore I most earnestly beg of you, if you get a leisure moment, do me the kindness to read it and let me hear your verdict. Whatever your verdict may be you will do me a favor here in my loneliness by expressing yourself. The book will not be put on the market until this autumn, and that is a long time to wait. I wish you to remember me to two of our friends, namely: Jonas Collin and Julius Lange; the last could hardly have got a very favorable impression of me from our meeting in Rome; but I was at that time in a beastly humor and had divers reasons for it.

I regret, on my own account, that in all probability we shall not meet during your intended journey; but on your account I am heartily glad, inasmuch as your way leads to the South. It is an inexpressibly great good fortune to wend thither for the first time.

And with this my hearty thanks both for your letter and for all the rest.

Your Devoted

HENRIK IBSEN.

P. S.—Goldschmidt you are acquainted with personally, of course. If he is in Copenhagen at present, then please also remember me to him most heartily.

DRESDEN, July 15, 1869.

To Georg Brandes.

DEAR MR. BRANDES: What you tell me about Björnson has not surprised me; for him there exist only two kinds of people: those from whom he can derive some benefit, and those who are embarrassed by him. As good a psychologist as B. is capable of being in the presence of his own created personages, just so poorly does he calculate when it concerns real individuals.

I am beginning to suspect that perhaps I ought not to have asked you to read my new comedy. Upon closer thought I believe that the things which really interest you in poetry are the tragedies and comedies enacted in the inner life of the individual, and that you care little or nothing about the facts of reality,—whether they be political, or what not. In that case you may ask in regard to my play: What's Hecuba to me? But this time I did not wish to give anything else than what the work contains, for it must be judged accordingly. As for that, you are not entirely without responsibility in the matter yourself; as you have, in a sense, led me in this direction, through a remark made in your æsthetical writings. More about this orally.

It is a misconception of yours to think I believe you do not love the strong emotions or the profounder feelings. Quite the contrary, I only wished to warn you against expecting what you would not find.

I cannot agree with you concerning certain parts of "Peer Gynt." Of course, I bow before the laws of beauty; but I have no regard for its established customs. You name Michael Angelo. In my opinion no one has sinned more against the established conventions of beauty than he; but everything which he has created is beautiful nevertheless, because it is full of character. Raphael's art has really never warmed me; his personages belong to a time before the fall of man; and after all, the southerner has a different esthetic than we; he wants absolute beauty; while for us absolute ugliness may be beautiful by virtue of its inherent truth. But concerning this there is no use in disputing with pen and ink; we must meet.

What I said about "Brand" I must adhere to. That the book may have given pietism something to lean on you will surely not blame me for. You might just as well reproach Luther with introducing snobbishness into the world; this was surely not his intention, and he must therefore remain blameless of it.

At all events, thanks for your letter and for having met me in friendship; it is a great blessing to have found a whole personality.

On Thursday I leave for Stockholm, and when, towards the autumn, I return here again, where in the meantime my family

remain, I shall most probably go by the way of Copenhagen, so as to talk with you; not only of all the literary things in which we disagree, but of much also that is human, wherein I believe we stand a great deal closer to one another.

Your Devoted

HENRIK IBSEN.

When opportunity offers, give my best wishes to Chancellor Hegel.

DRESDEN, March 6th, 1870.

To Georg Brandes.

DEAR MR. BRANDES: The reason I have not answered your friendly note before to-day,—which was, besides, detained on the way, probably on account of the ice,—is because for several days I have been at odds with myself as to whether I ought not at once to go up to Copenhagen.

Upon consideration, however, I have come to the conclusion that this will not do, since I must of necessity go there this summer anyway. And then besides I suppose that the preparations for your journey occupy you so completely that you have no thought for anything else.

At present I have not the opportunity of seeing the Danish papers. But by now you are doctor, of course? Accept my heartiest congratulations. You say that you have no friends at home. I have long thought that. When one stands as you do, in an intimately personal relationship to one's life-work, one cannot really lay any claim to keeping one's "friends." But I believe that in the main it is good for you to depart without leaving any friends at home. Friends are an expensive luxury; and when one risks one's capital on a calling and a mission here in life one cannot afford to keep them. The costly thing about keeping friends does not lie, to be sure, in what one does for them, but in what one out of consideration for them refrains from doing. In that way many spiritual shoots are dwarfed in one. I have been through it, and there are therefore many years behind me in which I did not succeed in becoming myself.

With this I will stop for the present. I am often taken up

with thoughts of you, and have formed for myself a picture of you both in the present and in the future; for as little as I know you personally, just so closely are you associated with that which I spiritually possess, live upon and turn my every thought to.

I really have a lot of things to tell you; but they must wait. Thank you for your review of "The League of Youth," and thank you for your letter! I wish you joy and happiness in all the loveliness that awaits you. Write to me once again down from the sunshine.

Dear friend, you must believe me—I do not require the kind of agreement upon which the preservation of a relationship usually depends.

Your Devoted

HENRIK IBSEN.

To Georg Brandes.

DRESDEN, December 20th, 1870.

DEAR GEORG BRANDES: You have been in my thoughts every day during this time. Of your sickness I had learned both from Chancellor Hegel and the Norwegian papers; but I feared that you were yet too weak to receive letters and therefore I did not write.

Now I feel so reassured, since I received your friendly note yesterday. My hearty thanks for thinking of me!

You ask what you ought to undertake in the future. Why, yes, I will tell you. For the immediate future you must absolutely not undertake anything. You must give both thought and imagination an indefinite vacation; you shall lie quietly and be ennobled; for that is just the blessed thing about such illnesses—the way one passes out of them! A glorious time awaits you when you begin to regain your strength. I know this through personal experience: all evils thoughts departed from me; I only wanted to eat and drink what was fine and delicate; all coarse things, it seemed to me, would soil me. It is an indescribable condition of thankfulness and well-being.

And when you have grown strong and able again, what shall you do then? Why then you shall do what you must do. A nature such as yours makes no choice.

I will not write at length, as that would not be good for you. And you had better not write to me for a while yet.

This summer I was in Copenhagen. You have many, many friends and adherents there; more than you yourself believe, perhaps. If you remain absent now for a time, then so much the better; one always gains by allowing one's self to be missed.

At last they have taken Rome away from us mortals and given it to the politicians. Where shall we go now? Rome was the only inviolate place in Europe; the only place that enjoyed true freedom—freedom from political freedom's tyranny. I do not think I shall visit it again after what has happened. All that is lovely, unconscious and dirty will now disappear; for every statesman that springs up there, an artist will sink to ruin. And then that glorious longing for liberty,—that is now all ended; though, after all, I must say that the only thing I love about freedom is the struggle for it; the possession of it I do not care for.

One morning, some time ago, my new work became strikingly clear to me, and in the over-welling joy of the moment I wrote you a letter. It was not sent; as the mood did not last long, and when it was over I could not use it.

The world's happenings occupy a great part of my thoughts at present. The old illusionary France is broken in pieces, and so with one bound we are in a new era. Heigh ho! how the ideas will tumble round about us! And surely it is about time. All that we have lived on up to the present is nothing more than the crumbs from the revolutionary table of the last centuries, and that fare has been long enough chewed and rechewed. The old ideas need a new substance and a new exposition. Liberty, equality and fraternity are no longer the same things that they were in the blessed days of the guillotine. This is what the politicians will not understand, and therefore I hate them. They want only special revolutions; revolutions in the external life, in the political, etc. But all that is mere trumpery. What is of importance is the revolution of the soul of man, and there you will be one of those that lead. But first of all you must shake off the fever.

Your devoted friend,

HENRIK IBSEN.

DRESDEN, February 17, 1871.

To Georg Brandes.

DEAR BRANDES: I have thought, to be sure, that my long silence would make you angry; but I confidently hope that between us things are such that there can be no break on that account. Indeed, I have a decided feeling that a briskly maintained exchange of letters between us would sooner bring about such a danger. After we once have personally met there is much that would take another aspect; much would then be cleared up on both sides. Until then, I really run the danger through my diffusive remarks of placing myself in a wrong light in your eyes. You philosophers can reason the leg off an iron pot; and I have no desire through correspondence to allow myself to be reduced to a stone or a cock,—even with the possibility in view, after an oral explanation, of being raised to a human being again. In your previous letter you ironically admired my mental equipoise under the present conditions. There we have the stone! And now in your last friendly (?) note you make me out a hater of liberty. The cock! The case is this: My mind is calm because I regard France's present misfortune as the greatest good fortune that could befall her. As for the question of liberty I take it to reduce itself to a twisting of words. I shall never agree to making liberty synonymous with political freedom. What you call liberty I call license; and what I call the struggle for liberty is nothing else, indeed, than the constant, living acquisition of freedom's idea. He who possesses liberty other than as a thing to be striven for possesses it dead and soulless; for surely the conception of liberty has this in it, that it constantly develops during its acquisition. So that a man who stands quietly through the struggle and says: "Now I have it"—shows thereby that he has just lost it. But it is just this dead possession of a certain given standpoint of liberty that is characteristic of the body-politic; and this it is that I have said is of no use! To be sure, it may be beneficial to possess the freedom of the ballot, freedom from taxation, etc., but for whom is it a benefit? For the citizen, not for the individual. But there is absolutely no reasonable need for the individual to be a citizen. Quite the contrary. The state is the curse of the individual. With what is the

federal strength of Prussia bought? With the merging of the individual in the political and geographical concept. The waiter makes the best soldier. And on the other hand, there is the Jewish race, nature's noblemen. Why have they preserved themselves in isolation, in poesy, despite all vulgarity from without? Because they had no state to drag along. Had the Jewish race remained in Palestine, its structure would long since have gone under, like all the other races. The state must be abolished! In that revolution I will take part. The changing of forms of government is mere trifling with degrees,—a little more or a little less,—nothing but folly the whole thing. Indeed, dear friend, it simply depends upon not allowing one's self to be frightened by the venerableness of the prescriptions. The state has its root in Time; it will gain its culmination in Time. There will fall greater things than that; all religion will fall. Neither the conceptions of morality nor the conventions of art possess anything eternal in them. How much are we in reality obliged to hold fast to? Who will vouch for two and two not being five up in Jupiter?

These adumbrations I cannot and will not follow up further in writing. A hearty thanks for your poem! It will not be the last you will write, for the calling speaks out of every line! That you overestimate me I set down to the credit of our friendship; thank you, thank you! Keep me ever so in your thoughts; verily I shall not fail you!

And now regain your strength soon again! And then come to Dresden on two sound legs. Ah, yes, those legs! Did you not feel it to be a nemesis? Once you rushed out so violently against another philosopher because he stood on two legs. God be praised that you did not have to demonstrate the possibility of a philosopher's being able to do with one. I take it for granted that all danger is past, otherwise I should most certainly not jest about it.

Up to the present time I have received only the first half of "Critiques and Portraits" from Hegel; but even though I had received the whole I should have confined myself to a sincere "thank you" for the book. I am an exceedingly poor critic. Concerning some works I do not understand how to express my-

self, and that you appear to me on the whole as a complete personality, you know.

I have been occupied nearly night and day since Christmas with the publication of my collected poems. It has been an accursed piece of business, this having to go through the whole multitude of points of view that I had long ago done with. However, taken together they make something like a whole; and I am very anxious to hear what you will say about the book.

The thousand and one things which your letter might give occasion for writing about I will this time leave untouched. I must first learn whether I may expect to see you here soon. Then we will take up for discussion both Bishop Arius and the seven electoral-princes; you shall see I have not lived two years for nothing in the vicinity of Gert Westphaler's native land.

Sincerest wishes for health and all that is good.

Your Devoted

HENRIK IBSEN.

As soon as I succeed in getting a fairly respectable portrait I will send you one; meanwhile accept the enclosed. I hope you will reciprocate!

DRESDEN, May 18, 1871.

To Georg Brandes.

DEAR BRANDES: I hope you have received a greeting from me recently through our old counsel; at all events, I sent you one, and I have heard with great pleasure from Copenhagen that you are now well again and long since out of danger. As for the danger, I really have not believed in it; one does not die during the exposition; the great world-dramaturge needs you for a leading part in the "Haupt und Stats action," which he must surely now be soon preparing to give to a highly respected public.

My most sincere thanks for the photograph! It has advanced me considerably toward an understanding, or rather a comprehension, of your inner personality. That this appears clearly enough in your works is unquestionable; but I always like to have a definite shape to which I can relate my conception. And therefore I shall not be at ease until I have met you. I think it will then be

apparent that we agree upon something more than a partiality for velvet coats.

During this rather long interval I have not been able to persuade myself to write to you. From your last letter it appeared that you were a trifle vexed with me, and as my poems were then about to be published, I did not want to make any advances that might look like an attempt to conciliate you before you should have read them. I know very well that your opinion does not permit of being corrupted; but a regard for tact bade me avoid all appearance even of having believed anything of that sort. Dear friend, you will understand this.

I hope Hegel sent you the book long ago. There is both new and old in it, and much which I regard as of no great importance; yet it is all part of the story of my development. Now then, give me your verdict on it; I attach the greatest importance to knowing what that is.

And with what are you occupied down there in warm and beautiful Italy? Your sickness has brought you one advantage, perhaps, that you will pass a summer there. I think daily of you; I see you now in Frascati, now in Albano or in Ariccia. Pray, which is right? And what that is new is being prepared there for our intellectual future? For I am sure that something new has ripened during your long sickness. It is one of the blessings of such an illness that it gives clearness and growth to so much which otherwise would get no opportunity to unfold itself. I have only once been really sick; but just on that account, perhaps, I have never been really well. *Chi lo sa!*

Is it not outrageous of the Commune in Paris to have gone and spoiled my excellent state-theory—or more rightly my non-state-theory! Now the idea is destroyed for a long time, and I cannot even set it forth respectably in verse. But there is a sound kernel in it. That I see very clearly, and some time it will surely become practice, without all caricature.

I have often thought of what you once declared: that I had not got hold of the present point of view of science. How, indeed, should I have accomplished this? Surely one is not born again each generation, with contemporary views of things! Have

you never noticed in a collection of portraits of other centuries a peculiar family resemblance common to persons of the same period? So it is also in spiritual matters. What we profane lack in knowledge I think we make up for to a certain degree in intuition or instinct. Essentially, to be sure, a poet's task is to see and not to reflect; and in this especially I would see a danger for myself.

Dear Brandes,—it is always a relief to me to express myself to you, and a great, great pleasure to hear you talk, even though it is only on paper.

Your Devoted

HENRIK IBSEN.

To George Brandes.

DRESDEN, April 30, 1873.

DEAR BRANDES: You surely have good cause to complain of my negligence in letter-writing; but the fact is my pen has scarcely been out of my hand since we saw each other last, except while I've eaten and slept. This must serve as my excuse.

I thank you most sincerely for the books. "Ladislas Bolski" I read with great interest, although your description of the contents made as great an impression upon me as the reading of the book itself.

But now as to Stuart Mill's book! I do not know whether I dare express myself on a subject in which I am not an expert. Yet, when I recall that there are authors who write about philosophy without knowing Hegel, or without even a general knowledge of German scholarship, it seems to me many things may be permitted. I must honestly confess that I cannot in the least conceive of any advancement or any future in the Stuart Mill tendency. I cannot understand your willingness to take upon yourself the trouble of translating this work, which in its narrow-minded, sage-like wisdom seems to suggest Cicero and Seneca. I am convinced that you could have written a ten times better book yourself in half of the time the translation must have cost you. I also believe that you do Stuart Mill gross injustice when you doubt the truth of his assertion that he has gotten all his ideas from his wife.

You once said in a conversation that while the German philosophy set itself the task of defining the conception of things the English philosophy concerned itself with showing the laws of things. This remark made me desirous of reading something of the English philosophers; but I do not find that Stuart Mill has at all solved the problem you referred to. The "things" are, to be sure, something quite different from all kinds of mixed and accidental occurrences. A great deal of acumen may be contained in such a work; but if this is science then the "Christian Ethic" is also a scientific work. All this I fear to attempt to develop further on paper; but by word of mouth I will make bold some day to defend my opinion.

I am looking forward with great pleasure to your book on the German romantic school, and no less to the occasion of our coming together again. But where? To Munich I cannot go this summer. Can you not come by the way of Dresden? Toward the middle of June I go from here to Vienna and remain there until the latter part of July. If you can arrange your plans to conform with this, do so!

Our mutual friend, Adolf Strodtmann, has taken my poem, "The Signals of the North," amiss. I wrote him a letter in consequence of his calling my poem in the preface of his book a "Hohngedicht" against Germany; but since he remarked in his answer that he had not thought that I desired they should remain ignorant in Germany of what I wrote in the Danish papers, I have had nothing further to do with him in the matter. Of course, I have nothing against their learning in Germany of what I write in Denmark; what I do protest against is false interpretations of what I write. The poem is scornful, it is true, but not directed against Germany. There exists too much Hohn in our own countries, which I feel it important to deride, for me to take the trouble to deride the Germans. This must be enough for to-day concerning Strodtmann's book, about which, however, I have sundry things to say to you.

Now then, come soon down here! You are joyfully expected, despite differences of opinion in many things. At all events you

will surely let me hear from you, and I promise you to be more punctual in answering, since now I have time more at my own disposal.

With regards from my wife and myself,

Your Devoted

HENRIK IBSEN.

THE PURPOSE OF POETRY

BLISS CARMAN

A PLACE for the fine arts among our various human activities can be found by making a rough classification of our subject. The most primitive and necessary occupations we engage in, such as fishing and agriculture, trading, navigating, hunting, were called industries. These mark the earliest stage of man's career in civilization. Then he comes to other occupations, requiring more skill and ingenuity; he weaves fabrics, he makes himself houses, he fashions all sorts of implements for the household and the chase. He becomes a builder, a potter, a metalworker, an inventor. He has added thought to work and made the work easier. And these new occupations which he has discovered for himself differ from his earlier ones, chiefly in this, that they result in numerous objects of more or less permanence, cunningly contrived and aptly fitted to use. They are objects of useful or industrial art.

Now, two things should be noted about this step forward which man has taken toward civilization; in the first place he required some leisure to do these things, and in the second place the objects he made reveal his ingenuity and forethought. They are records of his life. And it will happen that as his leisure increases, his implements will become more and more elaborate and ornate. Every workman will have his own way of fashioning them, using his own device and designs, so that they will become something more than rude relics of one historic age or another; they will tell us something of the artificer himself; they will embody some intentional expression of human life, and come to have an art value. In so far as they can do this, they contain the essential quality of the fine arts. And the more freely the workman can deal with his craft, the more perfectly he can make it characteristic of himself, the greater will its artistic quality become.

The single purpose of the primitive industries was utilitarian. The prime object of the industrial arts is also utilitarian; but they have a secondary object as well, they aim at beauty. They not only serve the practical end for which they were intended;

they serve also as a means of expression for the workman. Now, just as we passed from the industries to the industrial arts, by the addition of this secondary interest, this human artistic expressional quality, so by making this quality paramount, we may pass from the industrial arts to the fine arts themselves, where expression is all important, and utility is almost lost sight of. It is the distinguishing mark of the fine arts that they afford a means of expression in terms of intelligible beauty.

I have made this distinction between the fine and the industrial arts merely for the sake of clearness, and to come to a notion of what is the essence of all art. But really the difference is not important, and having served its turn, may be forgotten. There is an element of art, of course, in everything that we do; the manner of the doing, that is the art. The quality of art which we should appreciate and respect may quite as truly be present in a Japanese tobacco box as in a Greek tragedy. The Japanese, indeed, offer an instance of a people who have raised the handicrafts quite to the level of the fine arts. All those fascinating objects of beauty, which they contrive with so much skill, are often, one may guess, only so many excuses for the workman to exhibit his deftness and his taste. This black oak cabinet inlaid with pearl, or that lacquer bowl, may perhaps be counted useful objects; but I fancy that before all else they were just so many opportunities for the artist; and when he fashioned them he had in mind only the creation of something beautiful, and thought very little of the use to which they might be put. He was bent on giving play to his imagination, and you may be very sure he was glad in the work of his hands and wrought all those intricate effects with loving care. Surely the result is much more deserving of respect than a mediocre epic or a second-rate painting. It is not what we do that counts, but how well we do it. There is no saying one kind of work is art, and another kind is not art. Anything that is well done is art; anything that is badly done is degrading.

I do not wish either to confine the word "useful," in its application, to material needs. Everything we do ought to be useful, and so it is, if it is done well. Tables and chairs are useful; but so are pictures and cathedrals and lyrics and the theatre. If

we allow ourselves only what are called the necessities of life, we are only keeping alive one-third of being; the other two-thirds of our manhood may be starving to death. The mind and the soul have their necessities, as well as the body. And we are to seek these things, not for future salvation, but for salvation here and now, that life may be helpful and sane and happy.

It is easy to see how a fine art may grow from some more necessary and commonplace undertaking. The fine art of painting, for instance, arose from the use of ornamental lines and figures, drawn on pottery, or on the walls of a skin tent, where it served only to enhance the value of the craftsman's work, and please his fancy. Gradually, through stages of mural decoration, perhaps, where ever-increasing freedom of execution was given the artist, its first ornamental purpose was forgotten, and it came to serve only as a means of expressing the artist's imaginative ideals. So, too, of sculpture and architecture, of dancing and acting. It is an easy transition from the light-hearted, superfluous skip of a child as it runs, to the more formal dance-step, as the child keeps time to music and gives vent to its gayety of spirit. It is an easy transition from gesture and sign-language, employed as a useful means of communication, to their more elaborate use in the art of acting, where they serve merely to create an illusion. So, too, whenever a piece of information is conveyed by word of mouth, and the teller of the tale elaborates it with zest and interest, making it more memorable and vivid, the fine art of letters is born.

It is noticeable that the quality of art begins to appear in all our occupations, as the dire stress of existence is relieved, and man's spirit begins to have free play. Art is an indication of health and happy exuberance of life; it is as instinctive and spontaneous in its origin as child's play. To produce it naturally the artist must be free, for the time being at least,—free from all doubt or hesitation about the truth, free from all material entanglements, free from all dejection and sadness of heart. So that the primitive industries mark the first grade in the human story, when we were barely escaping from the necessity of unrelenting hand-to-hand physical struggle for life; and the second grade in this progress is marked by the appearance of the industrial arts; while

the fine arts may be looked upon as an index of the highest development, in the transition from savagery and barbarism to civilization. And perhaps we shall not go very far astray, in this comparative estimate of nations and their greatness on the earth, if we rank them in the order of their proficiency in the arts.

Now, the fine arts having thus had their rise in the free play of the human spirit, as it went about its work in the world, and busied itself with the concerns of life, became a natural vehicle for giving expression to all man's aspirations and thoughts about life. Indeed, it was this very simple elemental need for self-expression, as a trait in human character, which helped to determine what the fine arts should be. To communicate feelings, to transmit knowledge, to give amusement by creating a mimic world with imaginative shapes of beauty, these were fundamental cravings, lurking deep in the spirit of man, and demanding satisfaction almost as imperiously as the desires of the body. If hunger and cold made us industrious humans, no less certainly love of companionship and need for self-expression molded our breath into articulate speech. Since, therefore, the fine arts are so truly a creation of man, we may expect to find in them a trustworthy image of himself. Whatever is human will be there. All his thoughts, all his emotions, all his sensations and hopes and fears. They will reveal and embody in themselves all the traits of his complex nature. Art is that lovely corporeal body with which man endowers the spirit of goodness and the thought of truth. For there are in man these three great principles, a capacity for finding out the truth and distinguishing it from error, a capacity for perceiving goodness and knowing it from evil, and a capacity for discriminating between what is ugly and what is fair. By virtue of the first of these powers, man has sought knowledge, has become the philosopher and scientist; by virtue of the second, he has evolved religions and laws, and social order and advancement; while by virtue of the third he has become an artist. Yet we must be careful not to suppose that either one of these powers ever comes into play entirely alone; for man has not three separate natures, but one nature with three different phases. When, therefore, man finds expression for his complete personality in the fine

arts, there will always be found there not only creations of beauty, but monuments of wisdom and religion as well. Art can no more exist without having a moral bearing than a body can exist without a soul. Its influence may be for good or for bad, but it is there and it is inevitable. In the same way no art can exist without an underlying philosophy, any more than man can exist without a mind. The philosophy may be trivial or profound, but it is always present.

Art is enlisted beyond escape, both in the service of science and in the service of religion. Great art appears wherever the heart of man has been able to manifest itself in a perfectly beautiful guise, informed by thoughts of radiant truth, and inspired by emotions of limitless goodness. Any piece of art which does not fulfill its obligations to truth and goodness, as well as to beauty, is necessarily faulty and incomplete.

At first thought objection may be raised against such a canon of criticism as this; for truth is the object of all science, and goodness is the object of all morality, and some persons have been accustomed to say that art has nothing whatever to do, either with morality or science, but exists for its own sake alone, for the increase and perpetuation of pleasure. But art cannot give complete pleasure, if it only appeals to the senses, and leaves unsatisfied natural curiosity and wonder, the need for understanding, and the need for loving. That is to say, reason and emotion must always be appealed to, as well as the sense of beauty.

For instance, I am entranced by the beautiful diction and cadence of the poem; at the same time, its conception of life and the universe may be patently false and puerile, and from that point of view it would not please me at all; it would disgust me. Or it might show a just estimate of life, it might be true to philosophy and science, and yet celebrate some mean or base or ignoble or cruel incident in a way that would be revolting to my spirit. In other words, while it satisfied my sense of beauty, it might fail utterly to satisfy my sense of right or my desire for truth. To be pleasing, the fine arts must satisfy the mind with its insatiable curiosity, and the soul with its love of justice, quite as thoroughly as they slake the needs of the senses.

The great preëminence of Browning as a poet does not rest on any profound philosophy to be found in his work, nor in his superior craftsmanship, nor yet in his generous uplifting impulse, and the way with which he arouses our feelings, but rather on the fact that he possessed all these three requirements of a poet in an equally marked degree. The work of Poe or of William Morris, on the other hand, does not exhibit this fine balance of strength, intellectuality and passion. On its sensuous side, it is wonderfully beautiful; and yet it is not wholly satisfying, since it fails to give us enough to think about. Its mentality is too slight. Neither of these poets, to judge from their poetry alone, had any large and firm grasp of the thought of the world, such as Browning possessed, and that is why the wizardry of Poe, and the luring charm of Morris are not more effective. An artist must be also a thinker and a prophet, if his creations are to have the breath of life. And again, poetry may easily fail by being overladen with this same requisite of mentality. It may have more thought than it can carry. Browning himself, in several of his later books, like the "Inn Album," quite loses the fine poise of his powers, and almost ceases to be a poet, in his desire to be a philosopher. This is the one great central truth which must illumine all criticism, and help our understanding of life, as well as of art.

When it is said that the business of art is to give pleasure, in all three of these possible ways, of course it must be understood that the arts differ one from another, in their ability to meet such demand. The art of music cannot satisfy my reason as completely as the art of poetry, for example; because it cannot transmit a logical statement of fact. It may appeal to my senses more charmingly than poetry can; it may arouse my emotions profoundly; but it cannot appeal to my mind in the way poetry does. On the other hand, poetry itself is less strictly rational than prose literature; it does not attempt to satisfy the curiosity as completely as does prose, though it pleases the æsthetic sense more. There need be no question of one art being greater or less than another; we need only remember the way in which they vary, and how each has a different proportion of the three requirements which are necessary to them all.

To speak quite simply, then, art is concerned first of all in the creation of beauty. At the same time it is closely related to science on one side and religion on the other. But how? I suppose we may say (to speak again quite roughly) that science is all we know about things, and religion is all we feel about them. Naturally, therefore, every artistic conception to which we give expression will betray something both of our philosophy and our morality. It cannot be otherwise. In the case of literature the human spirit is finding expression for itself through the medium of human speech; and speech is the most exact means we have for conveying definite thought, and narrating facts. So that every literature contains a great body of work which is almost pure science. In De Quincey's useful phrase, "There is a literature of knowledge and a literature of power." Euclid's geometry, Newton's "Principia," Darwin's "Origin of Species" are works of science rather than of letters. They appeal solely to our reason, and do not attempt to please our sense of the beautiful by their literary structure and the arrangement of verbal sounds, nor to work upon our emotions in any way. Euclid does not care whether you like his forty-eighth proposition or not, so long as he can convince you that it is true. Neither does Darwin care whether his theory pleases or not. He is only interested in getting at the truth. How that truth may affect our feelings is quite another matter. So it is with theological and philosophic writers, like Spinoza and Kant; they are primarily scientists, not artists. But in a work like Plato's dialogues, there are two new elements which have entered into the making of the book. Plato is not only interested in finding out the truth, and convincing you of its reasonableness; he wishes at the same time to make the truth seem pleasant and good; he tries to enlist your feelings on his side; and also to satisfy your sense of beauty with his form of words. He has added a religious value and an art value to the theme of pure philosophy. He has made his book a piece of literature.

And as literature is related to science on one hand, it is related to religion on the other. A book of meditation or of hymns may be extremely devout in sentiment, without possessing any of the values of literature. Because, very often it takes a certain set of

ideas for granted, without caring very much whether they are the largest and truest ideas or not; and also because it makes no effort to be fine and distinguished in its diction. It may be entirely worthy in the fervor of its sentiment, and yet be quite unworthy, in an artistic way. With great religious books this is not so. Works like the psalms or passages of Isaiah, or the poetry of Job, or Tennyson's *Crossing the Bar*, are first of all religious in their intention; they are meant to play upon our emotional nature; but they do not stop there; they are cast in a form of words so perfect and fresh that it arrests us at once, and satisfies our love of beauty. At the same time they accord with the most profound and fundamental ideas about life and nature that humanity has been capable of. They satisfy the mind and the æsthetic sense, as well as the spiritual need. It is because of this three-fold completeness that we class them as pieces of literature, and not merely as records of religious enthusiasm? Depth of religious feeling alone would not have been sufficient to make them literature, any more than clear thinking and accurate reason alone could have made Plato's book a piece of literature.

It must be remembered, too, how vapid the artistic quality is, when it exists by itself, without adequate intelligence and underlying purpose. Think how much of modern art is characterized by nothing but form, how devoid it is of ideas, how lacking in anything like passionate enthusiasm. I believe this is due, to some extent, to a failure to realize that these components of which I have been speaking are absolutely requisite in all art. We forget that there is laid upon art any obligation except to be beautiful; we forget that it must embody the truest thought man has been able to reach, and enshrine the noblest impulses he has entertained. This is not so much a duty for art to undertake, as an inescapable destiny and natural function.

It is a sad day for a people when their art becomes divorced from the current of their life; when it comes to be looked on as something precious but unimportant, having nothing at all to do with their social structure, their education, their political ideals, their faith or their daily vocations. But I fear that we ourselves are living in just such a time. Fine arts may be patronized even

liberally, but they have no hold on us as a people; we have no wide feeling for them, no profound conviction of their importance.

There may be many reasons for this, and it is a question with which we are not directly concerned here. One reason there is, however, it seems to me, which is too important not to be referred to. The fine arts are an outgrowth and finer development of the industrial arts. One would expect them to flourish only in a nation where the industrial arts flourish; only in such a nation would the great body of the people be infused with the popular love of beauty and a feeling for art, which could create a stimulating, artistic atmosphere, and out of which great artists could be born. So much will be readily admitted. Now under modern industrial and commercial conditions the industrial arts are dead; they have been killed by the exigencies of business processes. The industrial artist has become the factory hand. To produce anything worth while, either in the fine or the industrial arts, it is necessary that the worker should not be hurried, and should have some freedom to do his work in his own way, according to his own delight and fancy. The modern workman, on the contrary, is a slave to his conditions; he can only earn his bread by working with a maximum of speed, and a minimum of conscientiousness. He can have neither pleasure nor pride in his work; and consequently that work can have no artistic value whatever. The result is, that not only are there no industrial arts, properly speaking, but the modern workman is losing all natural taste, and love of beauty, through being denied all exercise of that faculty. If I am allowed to learn the art of book-binder, or a potter, or a rug-maker, and to follow it for myself as best I can, my perception and love of what is beautiful will grow with my growing skill. But if I must work in a modern factory, where such things, or rather where hideous imitations of those things are produced, I should not be able to exercise my creative talent at all, and whatever love of beauty I may have had will perish for lack of use. Thus it happens that the average man to-day has so little appreciation of beauty, so little instinctive taste; and that the people give so scant a regard to arts and letters. Before they can be reinstated in that position of honor which they have always held, hitherto, among

civilized nations, it will be necessary to find some solution for these industrial difficulties.

It may seem at a superficial glance that the arts are all very well as a pastime, for the enjoyment of the few, but can have no imperative call upon busy men and women in active modern life. And if the average American should be told that in his country there was no widespread love of beauty, no popular taste in artistic matters, he would not, I believe, take the accusation very much to heart. He would probably admit it, and with pride point to the wonderful material success, the achievements in the realm of trade and commerce, the unmatched prosperity and wealth. But that answer will not do. You may lead me through the streets of the great cities, and fill my ears with stories of uncounted millions of money, unrivaled advance among the nations; but that will not divert my soul from horror at a state of society, where municipal government is a venial farce, where there is little reverence for law, where Mammon is a real God, and where every week there are instances of mob violence, as revolting as any that ever stained the history of the Emperors of degenerate Rome. The soul is not deceived. She sits at the centre of being, judging severely this violence, this folly and crime.

All this, of course, goes almost without saying. But the point I wish to make is, that this decay in moral standards goes hand in hand with the loss of taste. The sense of beauty and the sense of goodness are so closely related, that any injury to the one means an injury to the other. The nation which cares nothing at all for art cannot be expected to care very much for justice or righteousness. A man who does not care how hideous his surroundings are will not care very much about his moral obligations. And that national position of true greatness which many Americans have dreamed of can never be reached; those personal traits of dignity, honor, and kindness, which many old-fashioned Americans still retain, will be lost unless the vital need of moral standards and æsthetic ideals is recognized, and an effort made to secure them. The two must go hand in hand.

Such ideals of conduct, in the widest sense, it is the aim of art to supply, and education to inculcate. And education like art has

its three-fold object. It has to set itself not only to train the minds, in a desire for the truth, but at the same time to train the spirit to love only what is good, and the bodies to take pleasure in only what is beautiful and wholesome; and the work of education in any one of these directions must always be intimately related with its work in the other two. Emerson's wise phrase is profoundly true here,

"All are needed by each one,
Nothing is fair or good alone."

An education which does not quicken the conscience, and stimulate and refine all the senses, and instincts, along with the growing reason, must still remain a faulty education at best.

I am sure too much stress cannot be laid on this philosophic conception of man, and the three aspects of his nature. I believe it will be a solvent of many difficulties in education, in art, in life, in social and political aims. I believe that without it all endeavor for advancement in civilization will be sadly hampered and retarded, if not frustrated altogether. For the simple reason that art and civilization and social order exist for man; and they must therefore be adapted to the three differing kinds of requirements in his make-up. His intellectual needs and capacities must be trained and provided for; his great emotional and spiritual need of powers must be given exercise; his sensitive physical instincts must be guided and developed.

With this notion in mind, it may be well to consider what tasks literature must set itself, and what it may be expected to do for a people. In the first place it is the business of literature, as of all the arts, to create an illusion,—to project upon the imagination a mimic world, true to life, as we say, and at the same time more godly and fair than the actual one we know. For unless the world of art be in some way more delightful than the world of everyday experience, why should one ever visit it? I turn in sympathy to art, to music or reading, or objects of lovely color and shape, for recreation and refreshments, and solace and inspiration. I ask to find in it, ready to hand, these helpful and pleasant qualities which are so hard to find in real life. And the art which does not

give them to me is disappointing, however clever it may be. It is this necessity of being beautiful, this necessity of providing an immediate pleasure, that makes pure realism unsatisfying in art. Realism is necessary, but not sufficient.

For instance, I see a photograph of a beautiful elm-shaded street in an old New England town. It fills my eye instantly with a delightful scene. But by and by something in it begins to offend me, and I see that the telegraph pole is too obtrusive, and spoils the composition and balance of the picture. The photograph loses its value as a pleasure-giving piece of realism. Now a painter, in reproducing the same scene, would probably have left out the telegraph pole. That is the difference. And that is why photography, as usually practiced, is not one of the fine arts. It is said by those who contend for realism, for the photographic in literature, that art must be true to nature, and so it must to a certain extent; but there are other things besides the physical fact to which it must conform. The photograph was true to nature, but it was not true to my memory of the scene. The painter's reproduction was truer to that; he preserved for me the delightful impression I carried away on that wonderful June morning, when I visited the spot. For me his picture is more accurate than the photograph. When I was there I probably did not see the telegraph pole at all. It is, therefore, right that literature and art should attempt something more than the exact reproduction of things as they are, and should give us a city more charming, and a country more delectable to dwell in than any our feet have ever trod, and should people that world with characters, varied and fascinating, as in real life, but even more satisfying than any we have ever known.

There is another reason why art must be more than photographic: as time goes by and the earth grows old, man himself develops, however slow, in nobleness and understanding. His life becomes different from what it was. He gradually brings it into conformity with certain ideals and aspirations which have occurred to him. These new ideals and aspirations have always made their first appearance in art and literature before they were realized in actual life. Imagination is the lamp upon the difficult

path of progress. So that even in its outward aspect, art must differ from nature. The world is by no means perfect, but it is always tending toward perfection, and it is man's business to help that tendency. He must make his life more and more beautiful, simply because by so doing he makes himself more healthy and happy. To this end, art supplies him with standards, and keeps him constantly in mind of what perfection is. The influence of good art helps to make ugliness impossible. As long as I am satisfied with the photograph I am content to have the telegraph pole. And I shall continue to be satisfied with them both until the artist comes and shows me the blemish. As soon as I perceive the fault, I begin to want the telegraph pole removed. This is what a clever writer meant when he said that art does not follow nature, but nature follows art.

I lay so much stress on this point, because the conviction that literature and art must be more beautiful than life is somewhat lost. We readily admit that they must be sincere servants of truth and exemplars of noble sentiment, but there is an idea abroad, that in its form and substance art need only copy nature. This, I believe, is what our grandfathers might have called a pestilent heresy.

If art and literature are devoted to the service of beauty, no less are they dedicated to the service of truth and goodness. In the phrase which Arnold used to quote, it is their business to make reason and the will of God prevail. So that while literature must fulfill the obligations laid upon it to be delightful,—to charm and entertain with perennial pleasure,—quite as scrupulously must it meet the demands for knowledge, and satisfy spiritual needs. To meet the first of these demands, of course, it is not necessary for literature to treat of scientific subjects; it must, however, be enlightened by the soundest philosophy at its command, and inform with all the knowledge of its time. It may not deal directly with the thought of its age, but it must never be at variance with truth. There can be no quarrel between science and art, for art sooner or later makes use of all knowledge, all discoveries, all new ideas. It is the business of art to assimilate new knowledge and make it a power, for knowledge is not

power so long as it remains mere knowledge, and does not pass from the mind into the domain of the will.

In a scientific age like our own, when the limits of knowledge are being extended so rapidly, prose is a much more acceptable medium of expression than poetry, because it can keep nearer to science than poetry can; though poetry, in the long run, has quite as much need of accurate, wide information as has prose.

It is only that they make different use of the same material. Prose serves to bring definite reports of science, it appeals to reason, to curiosity. But poetry has another motive as well; it wishes to emphasize its subject so that it can not only be known more clearly, but can be felt more deeply. Of course prose has this aim in view, also, though to a less extent; and it invades the dominion of poetry whenever this aim becomes paramount. In literature prose must not be separated too dogmatically from poetry.

The attempt which literature makes to deepen one's feeling about a subject, is the spiritual purpose of art. And this spiritual or moral influence is always present in all literature, whether apparent or not. Art has its religious value, not because it deals directly with religious themes, but because it plays upon the moral nature and enhances the emotions. How intrinsically incumbent it is upon art, therefore, to stimulate generous and kindly feelings, rather than cruel or violent or selfish impulses.

It may often be necessary for art and literature to deal with human crime and depravity and moral obliquity, but it must never dwell upon them exclusively, nor make them seem to prevail. For evil does not rule the world; however powerful it may seem for the moment, in the long run it is overcome by the good. There is a tendency in modern letters to deal with repulsive themes, and depict the frailty and sorry short-comings of human nature, and to do this with an almost scientific accuracy. Some people praise this sort of thing as being true to life, while others call it immoral because such objects are touched upon at all. A juster view of the matter may perhaps lead to a different opinion. Since it is the prime duty of art to make happiness, to give encouragement and joy, to urge and support the spirit, to ennoble and en-

rich life; surely the one way in which art can be most immoral is to leave the heart depressed and sad and uncertain of the final issue between sorrow and gladness.

I have not said much about the technic of poetry, because I wished to indicate, if I could, a scope and destiny for poetic art more significant than we are accustomed to grant it. If we assure ourselves of the vital importance of art to a nation, if we set ourselves resolutely to change the tenor of public sentiment in regard to it, if we turn from the absorbing and ridiculous worship of unnecessary possessions and are generously devoted to the cause of beauty and kindliness, the specific development of poetry may be left to take care of itself.

THE DECLINE OF COMIC OPERA

W. J. HENDERSON

POOR music critics, when they use the title "comic opera," think of Mozart's "Marriage of Figaro," Rossini's "Barber of Seville" or Wagner's "Die Meistersinger"; but they are invariably informed by superior knowledge that these are not comic, but "grand" operas. The suspicion that a grand opera may also be comic does not seem to cross the popular mind, which conceives of "comic opera" as a humorous play with vocal solos, duets, and concerted pieces scattered through it. The result is that to-day there is little or no discrimination among the different forms of musical play such as comic operetta, musical farce, burlesque and extravaganza.

Most of the things called "comic opera" now are really extravaganzas, while the others are musical comedies. It is hardly judicial to dignify with the title of "opera" plays in which the highest flight of musical invention attains a cake-walk or a coon song. Operetta, or little opera, is the proper title to give to the works of such writers as Suppe, Strauss and Sullivan. Strictly speaking, it should be designated as comic operetta, for Mascagni's "Cavalleria Rusticana" is operetta just as well as Burnand and Sullivan's "Box and Cox."

In this country comic operetta began wholly as an exotic. We had German operettas and French *opera bouffes*. The first of the famous foreign contributors to our amusement in this manner were Franz von Suppe, born in 1820, and Jacques Offenbach, born in 1819. It was by a process of easy development from the methods of the former, rather than from those of the latter, that we arrived at our "Robin Hood" and "Serenade."

The Gallic spirit and style of Offenbach offered little suggestion to the creators of English comic operetta. Offenbach's works have never had a great vogue when presented in English and by English-speaking performers. They demand the peculiar *diablerie* of French men and more especially of French women to give them their correct effect. In the hands of English-speaking players they become dull and slow-footed. It must be added, too,

that their dialogue contains much that cannot be suitably translated.

Since we are a Teutonic rather than a Latin people, we have assimilated more easily the comic operetta methods of the Germans. No doubt it would puzzle an antiquarian to discover any relationship between Suppe's "Fatinitza" and "The Yankee Consul," yet the latter is a descendant of the former. The Germans, long before the birth of Suppe, had a form called the "singspiel," or "song play." That was a dramatic entertainment interspersed with specially composed musical numbers. The title is an elastic one and may be applied to any musical work with spoken dialogue. Even Beethoven's "Fidelio" may be classed under the generic title of "singspiel."

The comic singspiel was the parent of the modern comic operetta. The process of evolution here was natural, simple and direct, and as the singspiel was so often a work of high art, so the German comic operetta, in its inception, was a superior article. A production of Suppe's "Fatiniza," with all the splendors of contemporaneous stage mounting, would certainly amaze the theatre-goers of this time, for the libretto is comedy of a most excellent sort and the music is brilliant, original, and withal made of the elements which tickle the popular ear. But alas! about all that is left of Suppe in these lascivious times of the barber-shop chord is his "Light Cavalry" overture, which is butchered to make theatre *entr'actes* intolerable.

The fruit of the German singspiel and comic operetta came to the new world by way of England. In 1878 James C. Duff, brother-in-law of Augustin Daly, returned from a summer in Europe with the score of Gilbert and Sullivan's "H. M. S. Pinafore" under his arm. He battered vainly at the doors of a dozen New York Theatres with this new thing under the theatrical firmament, and finally found an opening in the Standard Theatre, situated where the Manhattan now is, and managed by this writer's father.

Gilbert and Sullivan had already opened up a new field of pleasure to England with their artistic combinations of polished literary wit and light, but artistic, music. They themselves perhaps never knew that they owed much to Suppe and the Germans.

English writers have found the origin of these men's works in a desire to improve the silly old-fashioned burlesques which formerly entertained the easy-going Britons. These burlesques contained "lyrics" of about the same calibre as those now usually heard in our "comic operas." Gilbert set out to make lyrics with some point, and he took delight in satirizing things familiar to his countrymen. For example, in a piece called "*La Vivandiere*," produced seven years before "*Trial by Jury*," Gilbert, in this manner, hit off the traveling Englishman turning up his nose at everything:

"I've half a dozen Frenchmen tried to teach
That I'm twelve times as brave and strong as each,
And showed that this corollary must follow,
One Englishman can thrash twelve Frenchmen hollow.
In fact, my friends, wherever we have placed ourselves,
I may say we have thoroughly disgraced ourselves."

Afterward he wrote for the German Reed theatre the libretto of the one-act operetta "*Ages Ago*," for which Alfred Cellier provided the music. Meanwhile, Sullivan had composed music for Burnand's version of "*Box and Cox*," and thus attention was drawn to the two men and they were eventually brought together. They wrote "*Trial by Jury*," which D'Oyly Carte and Selina Dolaro produced at the Royalty Theatre, March 25, 1875. Carte, who was a manager of ability even then, foresaw the future value of Gilbert and Sullivan. They were united artistically and the result was the production of "*The Sorcerer*" in 1877, and "*H.M.S. Pinafore*" in 1878.

It was the latter operetta which Mr. Duff brought to this country and which suddenly awakened New York to the knowledge that there was something new under the sun. The "*Pinafore*" furore was indeed remarkable. As there was no copyright on the work, anyone could perform it, and at one time it was running to full houses in five theatres in this city. There were children's "*Pinafore*" companies, church-choir "*Pinafore*" companies and colored "*Pinafore*" companies; and finally came the Boston Ideal "*Pinafore*" company, which survived the "*Pinafore*" craze and in after years was called *The Bostonians*. Some of it is still left in active service.

In 1880 Gilbert and Sullivan brought forward their delightful "Pirates of Penzance," and this time they took measures to prevent American pirates from profiting by it. The two writers, accompanied by Mr. Carte, came to America, where they had formed an alliance with a Baltimore lawyer, John A. McCaull, and produced the new work at the Fifth Avenue Theatre. Mr. McCaull's pleasant experiences in his first venture into the theatrical arena decided his future course, and in 1881 he was in control of the Fifth Avenue Theatre and there produced an English adaptation of Audran's "Olivette," one of the very best of the modern French operettas. Only a year later he brought out "The Mascotte" and a work called "The Snake Charmer," both at the Bijou Theatre.

The second of these two operettas has a historical value, because in it a young, beautiful and talented singer known as Lillian Russell, whom McCaull had discovered at Tony Pastor's, made her début in operetta. The Gilbert and Sullivan régime under Carte had joined hands with the writer's father, and "Patience" was brought out at the Standard Theatre, which it packed nightly for six months. It was succeeded by Stevens and Solomon's "Claude Duval" and in the following season by "Les Manteaux Noirs," in which Richard Mansfield made his first appearance on the New York stage, enacting a low comedy part and singing several songs.

About this time Rudolph Aronson invented the Casino, which John McCaull supplied for several seasons with entertainment and company. The principal comedian of this company was Francis Wilson. With Mr. McCaull's entry into the Casino began the systematic production of German operettas in English adaptations. The house was opened with Strauss's "The Queen's Lace Handkerchief," and a long series of German works followed. Once in a while Mr. McCaull put on something from the French. This writer coöperated with the late H. C. Bunner in making an English adaptation of "La Petit Duc," which ran a hundred nights at the Casino.

Eventually Mr. Aronson took over the preparation of the operettas, and McCaull made his business home at Wallack's The-

atre. It was in this house that he made some of his best productions. He had a company of surpassing excellence, with De Wolf Hopper, Jefferson de Angelis and Digby Bell as the comedians, Laura Joyce and the incomparable Mathilde Cotrelly as the female comedians, Marion Manola as prima-donna and Eugene Oudin as leading baritone. These people could both act and sing, and McCaull had a singing chorus of the first order. His productions of "The Black Hussar," "Josephine Sold by Her Sisters," and other works of the same class have been excelled in later days in respect of scenery and costumes, but not in acting or singing. In genuine fun-making spirit they were irresistible.

Yet it was at this very time that the descent of "comic opera" began. Mr. McCaull's comedians began to be personally too popular to be held to their positions as the members of a stock company. Francis Wilson had led the way into the world of star operetta. Hopper, de Angelis and Bell soon followed, and the McCaull company began to decline. Mr. McCaull's death did much to speed the downward march of the form of entertainment which he had labored so hard to popularize. He had a fine sense of humor, a natural taste for effective music, literary discrimination, and keen business instincts. Withal he was courageous in venture and resourceful in repulse. There was no manager to take his place after he had gone.

The Gilbert and Sullivan works had fallen into the hands of speculators; the highest bidder got each success as it came out in London. The star performers were also bid for by speculative managers, who had operettas built to suit their peculiarities. Nothing was done for ensemble, and there was no theatre in which operetta had a permanent home. The sole exception to this state of affairs was the works of Smith and de Koven.

Mr. McCaull, in his management of the Fifth Avenue Theatre, had given these two men their first hearing, when he produced their first operetta, "The Begum," a very promising work. The great and lasting success of their "Robin Hood," without question the best operetta yet written by Americans, gave them a vogue which in the end was harmful to them. Their earlier works, such as "The Fencing Master," "The Algerian," and

above all the delicious "Rob Roy"—why does not someone revive it?—were composed for stock operetta companies. Those works were written at a happy time, when the stars were the names of the author and composer, just as they had been in the halcyon days of Gilbert and Sullivan. But slowly and surely the names of certain performers were pushed ahead, and in the end Smith and de Koven have had to become operetta tailors, cutting and fitting garments for star players.

One of the peculiar and significant elements in the downfall of operetta was the attempt to make stars of certain women singers. Perhaps no one of them called forth more numerous and disastrous attempts of this kind than Lillian Russell. It was not to be wondered at. When I saw Miss Russell in "The Snake Charmer," she was a vision of beauty and she had a fresh, rich voice, but little knowledge of singing. She afterward studied singing diligently and became a good vocal artist. It was not long after her début that she became the talk of the town, and it was not astonishing that in the course of time, as her beauty matured and her theatrical skill improved, that managers sought to make her the central figure of productions.

Henry E. Abbey, the grand-opera manager, tried the experiment, and it was said that he lost \$200,000 in a single season. The difficulty was that Miss Russell, not being a comedian or a *soubrette*, had to depend on her beauty, her magnificent costumes and her singing to attract the public, and the comic element in her operettas had to be made subsidiary. The result was that the operettas in which she appeared were a hollow glitter. They dazzled the eye, but not the brain. They were simply not sufficiently amusing to please the people who looked upon operetta as a form of fun. Better results were obtained with women stars like Alice Nielsen, who had ability in comic acting; but the true basis of comic operetta was obscured. No thoroughly good operetta book has been written except on the plan of a stock-company farce.

Again, however, it was reserved for the English to find a path out of the apparent difficulty. The figure of the operetta *soubrette* (using that title in its old and legitimate signification, mean-

ing a feminine comedian who can sing) was too attractive to the public eye to be lost. At the same time there was no one in sight to take the place of the senescent Gilbert. A relapse in the direction of the old-fashioned burlesque was inevitable. Something had to be done in the form of a compromise, and out of the endeavors toward this came the "musical comedy," so-called. Under this generic term are classed the British musical plays of the same species as "The Geisha" and "San Toy" and those of the variety of the numerous "Girls"—the "Gaiety Girl," "The Country Girl," "The Runaway Girl," and so forward to the current one, "The School Girl."

It is much easier to build one of these musical farces than to make a good comic operetta. In the real "comic opera" the author aims at some illusion. He strives to make either a consistent farcical story or a clever satire. No matter how unreal the incidents or the personages may be, there is a pretense of reality and an auditor can accept the premises of the story without any dislocation of his ideas.

But in the English musical play all idea of reality or consistency is abandoned. English ladies in full dress wander about in Oriental gardens and dance skirt dances. British noblemen marry ignorant tea girls and Hindoostanee princes turn somersaults. For example, in "The School Girl" Edna May, clad in the garb she wore at the convent from which she has just run away, enters a stock broker's office and is mistaken for the new typewriter. Moreover, she sits down at the machine and shows that she is an accomplished operator. How different this from *Patience*, the milkmaid, wearing her dainty gown and her beribboned hat, which you accept without a moment's reflection as a part of the delightful satire of the whole story of Gilbert's witty libretto.

One of the English constructors of musical plays recently set forth in an interview his ideas of his own business. He said that in making one of these works of art he first thought of a Girl, and next of her local habitation. For example, he would first hit upon a country Girl, and next upon the country in which she dwelt. The conception of the Girl enabled him to see his principal actress fitted with a suitable rôle, one in which she could be sure of captivating

the public. The location of the story provided the picturesque costumes and scenery requisite for such a play.

The rest was of course easy. All that had to be done after the first two proceedings was to make a simple story in which the tenor or baritone, an Englishman, was in love with the Girl, and throw in a few British lords and ladies of high degree and ridiculous manners to be offset against the simple-hearted and modest Girl, and there you were. In short, the British musical play is a theatrical descendant of the cheap popular novel which is read with avidity by the shop girl, the novel in which the lordly people are all shown to be vain and shallow and worthless, while the honest working Girl is held up as the type of all that is excellent in woman.

Note how the method of construction differs radically from that of the old operetta. Gilbert, for instance, invariably made the male comedian the central figure of his play. The story revolves around Bunthorne in "Patience," around the Lord Chancellor in "Iolanthe," around Koko in "The Mikado." Consequently the main plot must be humorous, and whatever sentiment there is in the piece is subsidiary. In the contemporaneous British musical play the central figure is always the Girl, and she exudes sentiment of a musk and Saturday half-holiday order wherever she goes.

The humorous elements are secondary and consist chiefly of a type of caricature borrowed from the colored comic paper. For one thing, however, we must thank the English musical play. Its skirt dance and its graceful gyration of the feminine foot among umbrageous lingerie are pretty, decent and akin to real terpsichorean art. This thing is infinitely finer than the spasmodic high kicking of our own type of musical play, of which such astonishing creations as "The Wizard of Oz" and "Piff, Paff, Pouf" are fair samples.

Furthermore, the musical setting of the British product is usually better than that of ours. We have come to a period when the scores of our representative "comic operas" consist of one or two sentimental ditties of the type of "Navajo" or "Under the Sycamore Tree," which are weird outgrowths of the "coon song" and

a few cake-walk tunes. The musical cadences out of which the characteristic features of these cake-walk tunes are made are so few that if you have heard three or four of them, you have practically heard them all. The composers have to steal from one another, because the available musical material is so small. The Britons have not escaped the contagion of the American coon song, and nearly every one of their recent musical plays has one in its score. However, the English coon songs are so diluted with London fog that they are harmless.

Shall we ever go back to the old-fashioned stock operetta with its libretto of delicious satirical humor and its artistically made score? The managers say that it is too good for the public. The public, in its own quiet way, answers this by crowding the house whenever "Robin Hood" is offered for its delectation. But of course the almost insurmountable difficulty in the way of a successful return to better conditions in this joyous form of stage art is the want of a school. We have to-day no theatre which is the home of operetta. We have no temple of fun and music such as the Savoy Theatre in London was during the long reign of D'Oyly Carte. We have no such manager as Mr. Carte, who was not only a gentleman of taste and culture, but a thorough musician. Aspirants for positions in his companies used to find it somewhat disconcerting to have the manager sit down at the piano and play their accompaniments for them at sight.

There are almost no good singers in comic operetta at the present time. The form of entertainment has declined so far that good singing is not needed; and this, I take it, is largely the outcome of the long domination of the star system. If the star is a comedian, the singing must necessarily be subsidiary, and so cheap performers are engaged for the singing parts. The composers, who do not write according to their own ideas, but solely to fit the requirements of the stars, will certainly not compose good vocal numbers for people who cannot sing them. If the star is a woman and a singer, then all the vocal glory must be reserved for her, and again the composer is hampered in his efforts. So conditions react on each other. There is no call for many singers in the star

operetta and thus singers are driven into other fields of employment.

Good librettos are scarcer than good music, for the simple reason that managers have unwittingly advanced in their productions further and further toward the uttermost limits of inanity, till now they really believe that the public is too foolish to recognize a good libretto even if one were offered to it; those who can write them do not try. What would be the use? I believe, nevertheless, that if such a work as "The Mikado" or "Robin Hood" were brought forward to-day, it would run a year in this jaded city of New York. I also believe with equal faith that if such a work were offered to any one of the managers now in control of the "comic-opera" business, it would be rejected.

PHILOSOPHY AND MODERN LIFE.

JAMES H. HYSLOP

MORE than a century ago Immanuel Kant felt constrained to lament the neglect of philosophic studies. "Time was," he said, "when she was the *queen* of all the sciences, and if we take the will for the deed, she certainly deserves, as regards the high importance of her object matter, this title of honor. Now it is the fortune of the time to heap contempt and scorn upon her; and the matron mourns, forlorn and forsaken, like Hecuba." Kant, when he made this complaint, must have been thinking of the palmy days of Abelard, when the halls of Paris were crowded to hear the eloquence of this philosopher on great themes. But as soon as Kant had delivered himself of this lament he proceeded to write on the subject in a manner that made things worse instead of better. Nearly a century later Hermann Lotze, who was not less morally appreciative of the situation, remarked in equally impressive and pathetic language the unfortunate position of philosophic reflection. "Philosophy," he says, "is a mother wounded by the ingratitude of her children. Once she was all in all; Mathematics and Astronomy, Physics and Physiology, not less than Ethics and Politics, received their existence from her. But soon the daughters set up fine establishments of their own, each doing this earlier in proportion as it made swifter progress under the maternal influence; conscious of what they had now accomplished by their own labor they withdrew from the supervision of philosophy, which was not able to go into the minutiae of their new life, and became weary of the monotonous repetition of insufficient counsels. And when every offshoot of investigation which was capable of life and growth had separated itself from the common stem and taken independent root, it fell to philosophy to retain as her questionable share the undisputed possession of as much of all problems as remained still inexplicable. Reduced to this dowager's portion, she continued to live on, ever pondering afresh over the old, hard riddles, and

ever resorted to in calm moments by those who held fast to a hope of the unity of human knowledge."

This movement has been going on from the time of Plato to the present, and it was Kant who completed this development almost in the same breath with which he uttered his complaint. He admitted that God, Freedom, and Immortality were the fundamental problems of philosophy, but just as physical, economic, political and social science appropriated all the practical human interests that had once been sheltered under the wings of "divine philosophy," he elaborately tried to prove that these important questions were insoluble, and as the human mind will not waste its energies on futile endeavors, it has compromised with science and evaded a conflict with religion by accepting the theory of knowledge as the proper domain of philosophy where it obtains a *modus vivendi* something like the banishment of Napoleon to St. Helena. He could neither defend his native country nor engage in warfare with his enemies. The theory of knowledge leaves philosophy without any general human interest to elicit for it either favor or opposition. To this disadvantage it has added a language which is not intelligible to any but the initiated, and it is doubtful whether even they understand the oracles which they pretend to respect. Carlyle's description of Coleridge in the *Life of John Sterling* represents the condition of philosophic thought in the present age: "talk not flowing anywhither like a river, but spreading everywhither in inextricable currents and regurgitations like a lake or sea; terribly deficient in definite goal or aim, nay often in logical intelligibility; *what* you were to believe or do, on any earthly or heavenly thing, obstinately refusing to appear from it. So that most times you feel logically lost; swamped near to drowning in this tide of ingenious vocables, spreading out boundless as if to submerge the world." Its master started out boldly to refute scepticism, challenged the fundamental premises of Hume and then admitted his conclusions.

Philosophy simply repeats the adventures of Don Quixote. It invokes the applause of theology by leading in a crusade against some harmless enemy and then hangs itself on the doubts which its own premises professed to destroy. The theory of knowledge

has simply offered an escape from a duty or a privilege. It pretends to liberate a man from the power and methods of science and supplies a convenient subterfuge from the problems of religion. In spite of its intellectual jargon, "logical swim-bladders, transcendental life observers" and hazy infinitude of words, its devotion to Idealism only succeeds in reviving the dying embers of faith without disclosing its own scepticism. It shouts with all its might against Materialism, but the Materialism which excites its wrath is not that which has determined the issues of religion and philosophy, but an imaginary and useful bugbear for frightening innocent people into a distrust of science.

The fundamental difficulty with philosophy has been its method. Legitimate as this may be for criticism and argument, or for compelling deliberation and cautious habits of reflection, it is not the method by which the modern man forms his conviction on the order of the cosmos. I shall not describe the philosopher's method invidiously by calling it *a priori*: for it is not exactly that. Its defect is that it has never adequately appreciated and applied the *evidential* methods of science. It has been content with introspection and too much juggling with mere ideas. Its whole history shows that it is more closely identified with arguments drawn from the nature of things which it pretends to know than with the investigation of facts. It has never been brought to realize the revolution caused by the methods of physical science which observes and states its facts before it indulges in generalizations. It limits its conception of the nature of reality to the way in which this reality actually behaves itself and is not bound to apologize for any of the dogmas or beliefs of the past. The consequence is that philosophy has been hopelessly left in the rear of human progress. Science has taken its place of authority in the estimation of mankind, partly because it has accomplished so much for comprehensive views of the universe in the various results of Copernican astronomy, Newtonian gravitation and Darwinian evolution, and in stimulating invention and discovery for the practical wants of civilization, and partly because religion, which made philosophy its protector, has lost all its credentials except

hope and enthusiasm. "Faith" is no competitor of scientific method.

Thus we have the great fundamental conceptions of human interest in the serious field of reflection thoroughly discredited at the outset. The physical sciences have so fixed the sceptical condition of mind and encouraged confidence in their method as the only proper authority for belief, that philosophy cannot defend the old systems of thought against the weight of such opinion, and the only people who demand its oracles are those who want the traditional creeds supported. On the other hand, the philosopher is too intelligent to commit himself to decadent issues, and is so thoroughly under the spell of Kanto-Hegelian thought that he must ignore or deny the great problems which have constituted the intellectual interest of mankind ever since the controversies of Christianity with Lucretian materialism and the triumph of the Holy Roman Empire. Now until philosophy has some clear and intelligible message on these subjects for mankind in general, it cannot expect to elicit any interest for the theory of knowledge, except in that small coterie of meditative men who like the contemplative life and who can rely on the inertia of tradition to keep up a philosophic curriculum in the universities.

It does not matter on which side of the issues the clearness and intelligibility of the message may exist. I am not implying that the philosopher should support the popular conceptions of its great problems. All that I am insisting upon is the necessity of plain speech that shall be intelligent and intelligible pro or con regarding the proper questions of philosophy. It is not the side which philosophy takes on a question that determines its usefulness, but the stimulus to serious thinking which it exercises. An illustration of what it might effect, if clear in its attitude, is found in the extraordinary reception of Haeckel's little book entitled "The Riddle of the Universe." In its philosophic ideas, apart from the field of Physics and Biology, it is a most absurd and superficial work. The sceptic who fully sympathizes with its position cannot applaud it for depth or understanding. But it has one transcendent merit. It is plainspoken and fearless on the fundamental issues with which philosophy is supposed to be concerned, and

people always respect plain, courageous language when it shows a disposition to face issues, whether they understand the problem or not. They will always agree with Hosea Bigelow: "I du like a man who ain't afeard." We know where Haeckel stands and what he thinks on the great problem of human speculation. The same may be said of Herbert Spencer. The fascination which he has possessed for the majority of his readers is perfectly intelligible. There is no misunderstanding his position, whether acceptable or not. But the philosophy of the schools to-day is in a state of paralysis. It can not open its mouth to express a clear and emphatic judgment on the questions of God and Immortality without inviting the contempt of one and the hatred of the other of the two parties that divide on these issues. It dare not defend them without being ridiculed by science with its evidential demands and it dare not oppose them without exciting the powerful antagonism of religion.

Philosophy must appeal for sympathy to one of the two classes, the wealthy intellectuals, or the devotees of religion. The former are so identified with the conditions caused by or associated with the results of modern progress in physical science and industrial activity, and with such a "strong appetite for sweet victual," that you cannot expect to elicit from it any enthusiasm like Plato's for philosophic speculation. It is a worshipper of practical materialism, and if it were intellectual enough and inclined to philosophize at all it would adopt metaphysical materialism. But this class has no interest in the serious questions of a cosmic order or purpose. If perchance it wishes to ape the intellectuals in some lucid moment, its artificial interest may result in parlor lectures on Aristotle or Hegel. But usually life for it is a round of Epicurean pleasure in some form, or amusements which popularly go by such a name, but which are perhaps as unpleasant as they are compulsory.

Now it cannot be expected that this class will patronize an earnest philosophy. Seriousness in it would involve concessions to morality and common sense, and mar the pleasures of the irresponsible life which it persistently follows. The consequence is that the only class that can sustain an interest in philosophy is that

which has a religion of some sort to defend, and hence is concerned with the large problems of the universe and the associated questions of God, Immortality and Ethics. This class will ever resort to philosophy for support and consolation when it cannot obtain them from faith. It is on this class that the universities must rely for any substantial patronage of the philosophic curriculum. But it is also this class which will not permit the freedom of speech necessary to make the oracles of speculation clear. They must repeat the formulas of tradition or allow those who will to occupy the philosopher's places. The illusions of this class of patrons require to be exposed with great freedom by those who have studied the questions involved, if there is to be any reconciliation between science and religion.

The only man who can treat the problems involved in a profound and sympathetic manner is the philosopher who, like Plato, has disinterestedly examined all sides of the various physical, mental and moral phenomena of the world; not the man who has limited himself to physical science or the man who is chiefly interested in refusing to permit the analysis and discussion of a dogma. But the philosopher cannot do this work unless he has a perfectly free hand. As it is now, between the conflicting parties, he can only endeavor to escape the maledictions of both. He is safe if he expresses himself so that he is not understood by the scientist and so that he is misunderstood by the religious man. It is only when the philosopher can take this latter class by the throat and mercilessly reduce its intellectual pride and intolerance to submission that we can expect any clear message from him for the world. People are either not honest with themselves on the great questions on which philosophy is supposed to have the last word, or they are ignorant of the perplexities connected with them in any attempt to define them and to do clear thinking. They will not admit frankly the real or apparent doubts that hang over the existence of God, of Immortality and the problems of Ethics, while they insist on making them the central objects of human reflection and the basis of maxims whose importance is such that civilization depends more or less on their integrity, but whose certitude and validity are imperilled by disbelief in the premises. There is no

way, in modern times, to settle these questions but by the clearest, the fullest, and the most fearless discussion and criticism which must involve a frank exposure of the sins of the religious man. That discussion would have no animosities but for the church's dalliance with traditional formulas of belief. In speaking of them as traditional I do not mean to imply that they are on that account false, but only that they lack the rigid credentials which the habit of trusting scientific methods has suggested to the modern mind. The religious consciousness has to contend with a confirmed habit of mind produced by long adhesion to scientific methods, and these eschew tradition of all sorts.

It is true that the church has changed almost beyond recognition in the last twenty-five years. Bridgewater treatises are extinct. No man of first class scientific and philosophic rank any more writes on the evidences of Christianity in the style of the last generation. No men of important rank in theology any more defend religious dogmas after the manner of Jonathan Edwards and Charles Hodge. The church has rapidly abandoned all this and gone over to its proper function of social and moral teaching and regeneration. It retains the old formulas and repeats the rituals of the past, but it will not discuss them, though it demands respect and conformity and is afraid to admit the discussion which the situation demands. It does not openly abuse free thought. It does not directly persecute the heterodox. It effects its objects by indirection. It avails itself of a situation represented by the following facts which afford a fulcrum of considerable power in extorting either silence on the part of philosophers or conformity on the part of interested persons.

In the first place the college and university are based upon the demand for the largest possible attendance of students. Numbers are the standard of success which a board of trustees sets up for itself. Institutions are not conceived as missionaries, but as purveyors of knowledge, and must give it in the doses wanted. It is the religious class that represents the largest constituency for philosophic studies and it must be pacified. Any attempt to tell this class disagreeable truths about religio-philosophic doctrines would result in a corresponding diminution of support. I do not

criticise this policy, as what is called "free thought" is generally as intolerant as its rival, and is too often as indiscreet as it is indifferent to morals. I am only indicating a form of influence that prevents mediation as much as it hampers moral earnestness. In the second place, the student of philosophy who expects to be a teacher in any of the smaller institutions must himself be a "safe" man, and hence such as either knows how to remain silent on disputed issues or can positively satisfy the orthodox demand. If he is trained in definite controversy on the real issues of intellectual life and if he be disposed to handle them as they should be handled, he forfeits the opportunity for position and must choose some other profession. There may be excuses for this, and I do not deny the existence of reasons for it which I have to respect. Ideas that put forth a claim to recognition must have a social aim in their defence whether they be religious or otherwise, and must not be the mere logical whim of the possessor. But it is certain that the situation created by physical science is such that perfect freedom to tell disagreeable truths about religious dogmas is absolutely necessary to rejuvenate the influence of the only class of people who are entitled to any admiration in modern civilization, namely, those who in some form cling to the ideals for which religion has always stood. Unfortunately all defensible thought requires the philosopher to make his peace with science and religion at the same time, and his only security lies in being unintelligible to both. If, like Hegel, he expresses his heterodoxy in orthodox language, or phenomenalism and positivism in metaphysical terms, he can disarm religion while he gets the benefit of such humility as science possesses when it does not understand the passwords into that system.

It must not be understood, however, that I am denying all freedom of thought and speech in the universities. I should have much testimony against me. Many would say that this freedom is quite sufficient, and in the leading universities this is true. But it is a freedom that is accompanied with wisdom and prudence. No one has to complain of any desire either to correct or to defend orthodoxy in any field. The philosophers are perfectly free to discuss the problems of the history of thought and the theory of

knowledge, and also to attack Herbert Spencer for his bad metaphysics, but not for his facts, with the applause of the religious world. They are free enough to discuss any subject which neither the scientist nor the religious man understands or cares for. But they are not as free to discuss the fundamental problems of philosophy and theology as the case requires. It may be well that this is so. It may be wise to have the temperament which does not engage in controversies which the age wishes to forget or to discourage. Human passions are such that the civilized man must be careful how he discusses either religion or politics. He is in no mood to renew the controversies of the last century. But in spite of the desirability of more humanizing discussion there is a crying need for a freer treatment of the illusions of the religious mind generally in its persistent suspicion of scientific method, and the philosopher is not at liberty to speak frankly of his difficulties on the central questions of human interest. He stands between two fires. He does not like the dogmatism of science, but cannot attack it except for its occasional metaphysics, and he cannot agree with the adherents of religious dogmas, but dare not attack them without menacing his livelihood. He can only adopt a judicious silence on the questions which are a test of a man's interest in the highest of human ideals.

It will be said that this accuses the philosopher of cowardice and hypocrisy. It must be remembered that I am only stating a situation, not portraying a character. When it comes to analyzing and representing the character of the men who study and teach philosophy it will be found that, in spite of the disadvantageous position in which they are placed, they can vie with any other class of men in the virtues of a profession. They are of various character like all others of the *genus homo*, but the majority of them, I think, exhibit more of moral seriousness and interest in humanity in some form than any other class. They sometimes come to philosophy because of religious impulses, having discovered that the defence of their ideals depends on an intelligent conception and method of presenting their grounds. Some have abandoned the formulas of religion for the sake of the ideals which are in them and in order to control and direct the scepticism

which always attacks the most intelligent and most earnest men. They see the necessity of careful and critical thinking on all subjects, and find philosophic habits and fields of activity the most favorable school for this and such missionary influence as is permissible. They would preserve and reinforce ethics by the study of the largest cosmic problems. They are solicitous to allay the intellectual distress which has so characterized the age in its transition from traditional religious dogmas to scientific methods and beliefs. They may often lack the sense of humor, but the want of this is supplied by moral earnestness. They are interested in men, in political and social problems, in wide knowledge, in useful habits of thought and action, in all the high ideals of life, and compare more than favorably with any other class of whom serious moral aims are expected.

But if in this situation, however, they have no clear message on the problems of God, Immortality and various religious necessities they are not the chief parties to blame, or at least not the only persons at fault. They are usually willing enough to impart a saving gospel to the community. They would tell the truth freely enough if they were permitted. But between the indifferent and the intolerant class they have only the latter to fear and can perform no service for the former. They can only dole out the truth in prudential quantities or in ways that conceal the logical consequences until the holder discovers them for himself and must then accept the responsibility for his conclusions.

We must not forget that when a man's bread is at stake we cannot expect or demand sincerity and moral earnestness about our ideas unless he is willing to accept the position of a martyr. No man is obliged to be sincere unless he is free. Hypocrisy is not a vice except in a free community. Where men are not free, the charge of hypocrisy is only the invention of intolerance for the sake of perpetuating its power. Self-preservation is a man's first duty and his methods of defence are exempt from reproach when his rights are infringed. We should not exact courage, sincerity and earnestness from any man unless we first see that he has his liberty. If I form my convictions freely I must grant this right to my neighbor. The same holds true of the expression of

them. The man in commercial business is perfectly free to form any religious opinions he pleases and to express them, and he should grant the same right to the preacher and the teacher. If he does not accept this reciprocity of freedom he must submit to the fact that intellectual honesty, as he chooses to call it, will be as difficult to maintain as the sixth commandment in a state of war. In fact where there is no freedom and no respect for the rights of others in the formation and expression of opinions which their vocation or position demands of them, not one of the virtues usually exacted of such persons has any moral obligation whatever attached to it. On the contrary, where this liberty does not exist, what are called hypocrisy, insincerity and equivocation, so far from being sins, are either excusable or may even rank among the virtues as expedients for self-defence on the one hand and on the other for preserving as much influence for intelligence and morality as the situation will permit.

The whole blame for this condition, of which people may complain, rests upon themselves. They want honesty and moral earnestness in men whom they insist shall be in the position of both a master and a servant. Their notion of honesty, when examined, turns out to mean slavish obedience in serving their illusions, not in telling the strict truth. The parishioner asks his pastor to teach him the gospel and then holds the purse strings as a check against being told what he does not like. The same man will insist that philosophy shall defend his faith or be silenced. He has neither the opportunity nor the qualifications for solving the problems of the universe, but he has unbounded confidence in the power of his money to preserve his creed and to buy equivocal phrases in his support which flatter his pride as much as they deceive his judgment. He never concedes the rights which he arrogates to himself, but imagines that other people's intellects are pliable to the methods of arbitrary power instead of logic. He simply creates a situation in which the intellect exercises its functions under a policy of silence and conscience suspends its obligations until chance may bring about a better and freer world for its influence.

The philosopher might be a mediator between two equally

mistaken enemies if he were allowed sufficient freedom to speak his mind. But it happens that he can obtain immunity only when he attacks scepticism and not when he criticises theology unsparingly. Both sides of the controversy need some punishment. The blustering dogmatism of the "infidel and atheist" would receive no favor were it not for the passions on the other side. The free thinker is a man who usually happens to be in a position where there are no restrictions on his thought and speech, and consequently he can have the courage of his convictions, or appear to have it. He generally misunderstands the orthodox man as much as the orthodox man misunderstands him. His faults, intellectual and moral, are often the same as those of his opponent. He is injudicious and dogmatic in his temperament and unwise in his perceptions. He is inclined to be a radical in all his convictions, but this is only drawing the false conclusions which the orthodox man has always told him followed from the premises, and hence he accepts the natural consequence of the prejudice of his more conservative rival. If it were not for the different personal interests of the two parties they might be brought together for a conciliating conference. But as it is, the discussion resembles the famous performance of the Kilkenny cats, or is a hopeless wrangle about propositions that can be neither defined nor illustrated nor proved. The sceptic looks at the existence of God and the dogmas of Christianity as purely intellectual questions and dissociates from them the human interests which have made them hallowed. The religious man, with a primary view to the finest ideals of the race, sacrifices reason and fact to a personal passion for dogmas with which he has associated a consuming interest in the belief of a future life. The sceptic is a kind of dare devil who will not submit to a faith which offers no experimental evidence for its truth. The religious man cannot persuade himself to be a Stoic or to exhibit the virtues of a soldier in a situation where his ignorance should exact some honesty about his creed and some humility in his hopes. The sceptic asks intellectual honesty, the believer expects moral earnestness, both have their freedom and each demands that the philosopher shall be on his side without the freedom of either. You cannot persuade the sceptic that there are other in-

terests in life than the scientific truthfulness of the belief in the existence of God, and you cannot persuade the believer that there are any facts in the cosmic order that suggest perplexities in his theistic conceptions. Between these the philosopher, unless he is free, must have an embarrassing task.

The one thing needful is to bring the religious mind to realize the difficulties of its position and to have more confidence in the scientific method, which refuses to accept any other beliefs than the totality of experience justifies and proves by experimental agencies. The religious mind must be made to see and admit that no man cares anything about the existence of God for merely explanatory purposes, but only for moral interests. Fear of His power or hope of His reward, apart from the desire for cold scientific explanation, are the only conceivable interests that any man can have in his passion for theism. The primary conception which gave Christianity its power, after its purely social and ethical impulses were forgotten, was not its belief in the existence of God but its doctrine of a future life, and the belief in God was wholly subsidiary to this. Its dispute with Greek philosophy did not at first turn on this last question, but on the incarnation, miracles and immortality. When scepticism, however, began to encroach upon the belief in a future existence, then theology and philosophy sought an indirect support in the arguments for the existence of God. In default of facts to prove immortality directly, they thought it easier to show its rationality or even probability by invoking confidence in Providence whose existence they assumed could easily be proved. But this merely shifted the argument over from one issue to another and was simply a change of venue for scepticism which took up the challenge at that point and landed in the conclusions of Kant. Faith having defined, must needs accept the issue and suspend its belief in immortality on the fortunes of the argument for the existence of God. All the moral and emotional interests centering about the former were transferred to the latter controversy and aroused the passions of debate, not because it naturally invoked any animosities, but because human hope and aspiration will resist to the last ditch.

If man had had any rational assurances of a future life

without presupposing theism he would never have attacked atheism with such passion. Hence the only real human interest in the existence of God was that preconception of His character which was supposed to offer some guarantee for faith in a personal existence beyond the grave. If God had been conceived after the manner of Greek philosophy as mere power it is most probable that the human race would have treated His existence as did Epicurus, namely, refer Him to the intermundia where His existence might be admitted and His providential relation to the world denied. But when His existence was taken as a pledge for a moral interest in man, all the passions that centre about the desire for a continued existence after death were sure to be active in behalf of theism, and logic and fact would be subordinate to this desire. If men could have first shown the actual fact that the cosmic order was what they wished to establish as a presumption of theism, they would have escaped the bitter and barren controversies of later centuries. But having discarded science for speculation they have been forced to accept the logic which will not permit a positive faith to rest upon agnostic premises. The revival of science, however, which unfortunately religion did not hail with delight but engaged in mortal combat, only widened the breach until sheer exhaustion and defeat in every issue involved rendered religion powerless and discredited its oracles, and it must either accept the terms which the victor imposes or win his respect by the adoption of his methods.

The more the facts of physical science were frankly faced and men's reliance upon present experience was established, there was less to favor traditional beliefs and the more to suggest sceptical difficulties. All modern thought is evidential in its demands, and evidence of a scientific kind was lacking for theistic and associated conceptions. The triumphs of physical science and rationalistic criticism weakened the faith in revelation, and when the appeal could not be made to this men tried philosophy and turned to the arguments of Socrates and Plato for consolation and support. But the more they became imbued with scientific method and the absolute silence of physical

science on such topics as the soul, the more keenly they felt their disappointment with these philosophers' opinions.

Now, until the philosophers are free to admit or expose the errors of the ordinary religious believer, until they can speak as frankly and fearlessly on fundamental religious dogmas as they are permitted to criticise scepticism, no clear message can be expected or demanded of them. They can only wander in the wilderness of an Idealism which is all things to all men and nothing to any man. Their freedom is much greater than it was even a few decades ago, but this is mainly because of the great intellectual changes which have marked the decline of religious power and influence and not because they possess or have any reason to possess more missionary zeal for great truths than the average man. The age is too indifferent to all great spiritual principles to produce men interested in justice and virtue like Socrates and Plato, and hence there is freedom of a kind that enables many to confuse those who deny that there is freedom. But it is not a freedom to disturb the self-complacency of the classes who are blind to the dangers of a political and social deluge from the want of any well-defined and well-organized unselfish interest in justice instead of wealth and power. Religion is still strong enough even in its decadence to dictate the policy of education in philosophy, as there is no other class having a claim or an interest in its functions, and while religion has been and will remain the repository of man's ethical aspirations, of the enthusiasms that have done much for the race, it has too often alienated the sympathy of science and philosophy by its intellectual stupidity to secure the coöperation which its ideals deserve. Science has won its victory for freedom in nearly every field, generally by disclaiming the function or duty of discussing religious problems. It was able to undermine religious dogmas by indirection.

But philosophy could not and cannot shirk responsibilities so easily. It is committed by nature and history to the discussion of all the problems that have marked the rise and decline of theology. There are but two courses open to it. It may attempt, as the idealist usually does, to assume a superiority to all physical science and experimental methods, or it may accept, as it should, the right

of science to predetermine the facts and basis for all theoretical constructions of the phenomena of the universe as a whole, limit and conform its conclusions to these conditions, and adjust itself to religious problems with such prudence as its restricted freedom requires and with such a sense of duty as its opportunities allow and its vocation makes imperative, and it may then recover some of the respect which is due to intelligent efforts to summarize human knowledge and to direct thought and action, whether political or religious, toward an idealism that shall really deserve the name.

THE WORLD AND BRAIN

EDUARD HITZIG

WE have defined all that happens within our own body, and also in the outer world, as phenomena of motion, and have set ourselves the task of following, if only in its main outlines, the range of this series of processes of motion in the movements of the body.

Indeed all attractions which necessarily affect our nerves of sense and, by their excitation, produce our knowledge of the objects immediately about us and of our own personality, rest upon processes of motion of a mechanical, a physical, a chemical, and partly of a mixed nature.

If we wish to come to an understanding of the processes of life thus indicated in bold outlines, we must concern ourselves with certain characteristics of Anatomy and Physiology—characteristics common to vertebrates, without regard to the height of their development, and traceable far down into the lower classes of animals. Although the mechanism in question, of whose structure the most ingenious watch gives us no conception, may be infinitely complicated, yet its chief characteristics appear in the greatest simplicity. Beneath it lies the same ideal purpose that we meet in the whole creation of organized beings—the purpose of adapting those conditions by virtue of which the individual is able to live his own existence to the outer world and its relationships.

The nervous processes that play a part in our organism may be considered together from a common viewpoint, as *reflex processes*. Three kinds of apparatus, forming together the reflex mechanism, compose the indispensable anatomical foundation of these life-processes. The first of the three, the reception-apparatus, is composed of the implements of sense and of the nerves which arise out of these and which are intended for centripetal conduction. The six apparatus of sense, namely, those of sight, hearing, smell, taste and touch, and that of balance, when reduced to a common expression, seem to be nothing else than outposts of the central nervous system, which are enabled, by their peculiar construction, to receive news from the outer world, and by using the nerves as

telegraph wires to transmit their information to the spinal marrow or to the brain. In opposition to the central nervous system, those irritations having their source in the body itself are to be regarded as belonging to the outer world.

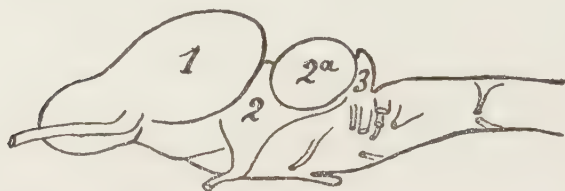


FIG. 1.

Brain of frog. 1 Great brain (cerebrum). 2 Middle brain. 2a Lobi optici. 3 Small brain (cerebellum).

We study these processes by an illustration — the results produced by the irritation of any sensitive nerve. We thus picture to ourselves that we are thereby demon-

strating a design which lies at the basis of all processes within the central nervous system, as well as of those that are psychical in the broadest sense of the word.

If I deprive a frog of its cerebrum and set it upon a table, it stands there at first as if nothing had happened to it. If I then injure a sensitive nerve of one of its legs, and irritate it mechanically by squeezing with pincers parts of its skin, the frog is made to hop. If I irritate the same nerves chemically by touching the skin with a drop of acetic acid, the animal straightway wipes off the acid with the other foot. In both experiments it acts exactly like an uninjured frog. The same frog, however, is incapable of any voluntary movements; on the edge of a pond it would dry up without seeking its natural element; with a hundred flies within striking distance it would die of hunger. However appropriate the movements caused by the irritation-experiment may be, they are certainly not voluntary movements, for of those the mutilated animal is forever deprived on account of the loss of its cerebrum; they are purely mechanical reflex-movements.

These movements are produced in this way:—the irritation received and transmitted by the first apparatus sets in activity the second apparatus, which is placed in the gray matter of the spinal marrow, namely, the apparatus of transmission. And this in turn allows the waves of irritation thus received to issue out into the

third apparatus—that of motion, which is composed of the motor nerves intended for centripetal conduction and ending in the muscles.

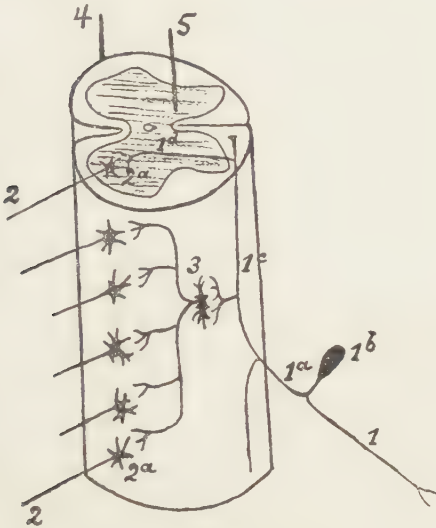


FIG. 2.

Design of the reflex-mechanism. 1 Sensitive fibres. 2 Sensitive root. 1b Sensitive cell. 1c Centripetal branch of the sensitive fibre. 1d Direct sensitive fibre of communication to a motor cell. 2 Motor fibre. 2a Motor cell. 3 Cell of association. 4 White matter. 5 Gray matter, of the spinal marrow.

If we have met in the centripetally and centrifugally conducting nerve-fibres, relatively simple and thread-like structures, the gray matter of the brain is composed on a far more complicated plan. We distinguish, in this, two structures, nerve-fibres and nerve-ganglia cells, which are imbedded in a peculiar elementary substance. Near the centripetal and centrifugal fibres, of which we have already spoken, the microscope reveals to us a seemingly inextricable confusion of inter-central fibres which serve the purposes of association.

For the purposes that now concern us, the ganglia-cells may be divided into three different groups. The first group, the sensitive extra spinal cells, come so into contact with the intraspinal apparatus that their nervous endings surround a third group of cells, the association cells, like the twigs of a tree-top. Out of the second group, the motor-cells, arise the motor-nerves, which communicate the movements of the muscles, and which therefore end blindly in the single muscle-fibres. Between the two systems is inserted the third group, the cells of association, which with their tree-like ramified branches surround the two other groups of cells and furnish contact between them. In this way, by means of the countless branches of the nerve-fibres and of the continuations of these different groups of ganglia-cells, very intimate and variously

ramified relation is established between these several groups. If the transmission of the sensible irritation of the motor fibres should pass solely by means of a simple direct connection (as is indicated in Fig. 2, by 1d), then the effect of the irritation would consist only of a traceless and transient contraction of a single microscopic muscle-fibre. The hopping of the frog, which results from this irritation, presupposes, however, that the millions of muscle-fibres, which move the frog's back, work together toward a clearly determined activity. This coördination or association is rendered anatomically possible by the nervous mechanism already described.

Now let us turn to the description of the new experiment on the frog that has lost its cerebrum. He is made to hop, but this time a board is held between him and the light coming in through the window, and we find that he never springs against the board, but quite intentionally, and by the easiest way, springs around the board. The springing movement is therefore regulated in its finer detail by the change of the irritation of light falling upon the skin of the eye; and indeed we find this regulation associated with a fixed small brain-organ, the so-called lobes (*Lobi optici*). By destroying this small brain-organ the described regulation is also destroyed, and the frog springs against the board. This experiment is of very great interest. Nothing can, of course, be said of consciousness, of will, or of unpleasant sensations in the case of the frog who is without its cerebrum and does not even think of eating. And yet, by the aid of a brain-organ that remains to him, he acts towards the external irritation with as much purpose as if his soul had considered everything for the best. The process which is described as a *collective reflex or automatic movement* permits us to perceive how the movements are regulated purely automatically through the co-working of a certain sensory organ without the assistance of the conscious will. It, moreover, necessarily establishes that, on the under side of the cerebrum in the so-called middle brain, there exists a higher and more intricately organized composition of nerves, in which not only the sensitive and sensory organs have their share, but from which also, upon particular courses and consequently in complete independence of the cerebrum, motor impulses, which in the given case are such as

modify the spring, pour forth to the spinal springing-mechanism.

In these experiments on the frog without its cerebrum let us take one step further. We have mentioned that the animal shows no evidence of being without a cerebrum other than the loss of all voluntary movement: it sits in the posture natural to an uninjured frog in maintaining its balance; indeed it is able under these difficult conditions to keep upright by balancing, and, also, in leaping to coördinate in the most precise fashion its separate muscles and parts of muscles. As the regulation of the springing mechanism is associated by means of light with the existence of the *Lobi optici*, so its coördination, the coördination of the movements generally, and the maintenance of its balance are associated with the existence of the cerebellum. If one destroys this organ, these capabilities disappear, the movements are unregulated, and the frog may no longer balance itself.

Just as the sight apparatus regulates the movement of the muscles by the mediation of the lobes, so these in turn are coördinated through the balance apparatus, which is composed of different members, by the mediation of the cerebellum. *The first of these members* is already known to us in its anatomical elements. These are elements of the already described reflex apparatus. The sensitive skin nerves divide into several branches as they enter the spinal marrow. The centripetal branch bends (see figure 2, 1c) in order to come in contact, in the middle brain,¹ with a similar but still more complicated transmission apparatus composed of nerve fibres and variously constructed ganglia-cells. Such an apparatus we have already come to know in the spinal marrow. With the nerves is associated a series of other sensitive nerves which proceed from the muscles, the sinews and the joints. Through these nerves the knowledge of the complete conditions of the separate parts of the real body of the frog, as well as the knowledge of the ganglia-cells of the transmission apparatus, is transmitted to that organ which controls the participation of the muscle impulse in any intentional movement whatever, and there-

¹ Departing from the customary anatomical nomenclature for the purposes of simplicity, we understand "the middle brain" in this essay to mean the collective brain organs with the exception of the cerebrum and the cerebellum.

fore in our example of the spring. Every phase of the movement is to be conceived of as an alteration of the phase preceding it; and it is clear that such can only take place intentionally if that organ which controls the change possesses a knowledge of the conditions of all the single parts of the apparatus of motion. Indeed this capability is immediately lost and a non-coördination of movements sets in if the rear roots, that is, those bundles of nerves, through which the described nerve-fibres enter into the spinal marrow, are cut through. The same is observed in various diseases of men, for example, in the *Tabes Dorsalis*, in which case the rear roots of the spinal marrow are destroyed, or in certain ailments of the cerebellum by which the regulation-apparatus itself is impaired.

The second member consists of the apparatus of six eye-muscles of each eye in connection with the sight-apparatus. The first member could give to the regulation-organ only a knowledge of certain conditions of its own body and of those objects of space with which it comes into immediate contact. A perfect orientation in space is only possible, if we are able not only to see other objects, but also to estimate their space-relation to our own person. Otherwise we should grasp at the moon like the untrained child. Through the unconsciously remaining feelings of innervation of the eye-muscles we derive such experiences as arise by the employment, and particularly by the co-working, of both eyes in the act of seeing. We may be deceived regarding the position of objects (dizziness), as a result of an injury to an eye-muscle. We already know such a deception in the case of the diseases of the rear spinal root region.

The third member of our balance-apparatus consists of the ear labyrinth, the three half-circle canals, the organ of the sixth static sense. These three bony canals lying in the three planes of space are covered with a skin membrane pervaded by the finest continuation of the *Nervus Vestibularis* and filled with a watery fluid, endolymph. At every change in the position of the head there is a change in the pressure of the endolymph upon the separate parts of the nervous expansion of the *Nervus Vestibularis* in the skinny labyrinth: these nervous impressions which arise at the six ends

of the three half-circle canals in a various but regulated fashion are conducted to the balance-apparatus and combined to a common complex of sensations, and thus communicate an orientation about the relation of the head in space.

If one cuts through a semi-circular canal, or if one changes the irritations issuing from it, by other means than by the natural influences of the head movement—for example, through electricity, cold, or the light—there arises, on account of the perversion of the information which is poured forth upon this canal, a second deception of the central organ regarding the relation of the head in space (dizziness).

The relation of the single members of this orientation-apparatus is expressed in a very remarkable fashion, in the case of those experiments in which the ear-labyrinth is irritated by galvanic means. Then, in men as well as in animals, the head is turned to the side from which the stream issues—that is, the side of the anode,—the eyeballs turn from side to side finally to be held fast in the corner of the eye, there appear seeming movements of the visual object, and, in the case of animals, there follow powerful movements of rotation around the longitudinal axis on the side of the anode. It may be proved that all these movements, of the head as well as of the eyes and of the whole body, are so conditioned that in the central organ arises the impression that turnings or destructions of the equilibrium toward the opposite side are taking place. The object of the experiment turns itself, therefore, involuntarily to the one side because it is dominated by the impelling sensation that it may lose its balance on the other side.

Of great value for the conception of our collective psychical processes is the consideration that the facts which have just been described also appear in the case of animals without a cerebrum, for example, doves, which are galvanized through the head or are revolved upon the periphery of a turning-plate.

The sum of these experiences finds its abstract expression in the following perfectly satisfactory explanation. The collective irritations which issue from the three members of the balance-apparatus are—within the mechanism of association and of trans-

mission, consisting of the gray masses of the middle brain and cerebellum—associated with unconscious conceptions of a lower order in such a way that the normal influence of irritations (even in the case of the cerebral will-power, for instance in the hopping frog), brings to view normal forms of movement, while the experimentally or unhealthily changed influence of such irritations necessarily establishes abnormal forms of movement without, and indeed against, the coöperation of cerebral influences of the will. These conceptions of a lower order, an advanced product of the conscious conceptions, are transmitted to the consciousness as a whole so that it is able to reckon with them collectively without ever penetrating into their details. In this way may be explained, on the one side, the complete domination of the finest details of the muscle movement by the sensorium without a conscious knowledge of the conditions of the muscles; on the other side, the conscious perception of seeming movement in the case of abnormally arising mental irritations.

Without further discussion, the purpose of the already described reflective incitation of the movements and of their automatic regulation is obvious. If the consciousness, at every change of a phase of movement, had to concern itself with the above presented millions of details in the conditions of the collective movement apparatus, then its attention would be led by the confusing mass of all these single conceptions measurably away from its real goal,—the conception of movement that serves a fixed purpose,—so that the intended movement, if it came at all, would come far too late for the purpose. Let us imagine a rope dancer upon his rope. He would without doubt break his neck at the first step if he should regulate his movements with the conscious will alone; his automatic regulation carries him surely upon his dangerous path. Moreover, without regard to the possession of his automatic apparatus, the rope dancer would quite as certainly break his neck if he should try for the first time upon a high tower rope. *Practice* keeps him from falling.

Here we meet again one of the weightiest factors in the region of psychical processes. In principle, it is quite the same when the frog hops under the irritation of the squeezing pincers as when the

rope dancer balances upon his swaying rope. Our previous discussions have indeed taught us the anatomical ways by which the sensible irritation in the spinal marrow can expand in order to create a springing movement, but therein it was in no way explained how an intentional springing movement comes about nor why the frog does not wipe itself, if it is pinched, or hop if it is corroded with acid. If indeed the animal uses always the same fibres and cells, the movement may have this or that character. The explanation is to be found in that internal process which we indicate by the name of practice and which arises in the conception of association. We can illustrate this to ourselves if we picture how man learns to walk. In that process there come first irregular and unintentional movements of the limbs which correspond to a similarly unintentional division of irritation in the spinal marrow; and now quite gradually is formed an harmonious coöperation of the inner and outer functions of motion. Though the man can now walk, he certainly cannot dance in a ballet or on a rope; and, though he may use his hands for eating, yet that does not render him able to knit or to play the piano, although like the hopping or wiping frog, he avails himself of the same fibres and cells.

If we seek after the *nature* of the practice, we must free ourselves from the idea that it consists of a schooling of the limbs in the sense that one speaks of the finger exercises of the piano player. The fingers have almost nothing to do with it, but rather the central organ. The nature of the practice consists of the entrance of certain changes of sensitiveness within the central organ, through which the reëntrance of repeatedly present processes of incitation is made easy. In other words, if an impulse, whether the irritation of the will or an external self-irritation, has once expanded over the fixed limits of the central organ and has coördinated certain form elements commonly to a fixed purpose of movement, then these similar elements will in future act together easier than before and easier than a coördination of any other elements whatever. Of every function, of every movement there remains accordingly a *something* in the gray matter, and this something can, on fixed occasions, appear once more and produce its effect.

In our example these processes are manifested through externally perceptible movements. These changes in the irritability are, moreover, not essentially different from those processes whose products we comprehend under the name of *recollection*. A difference consists, according to the views of one school, in the greater or lesser share of the consciousness in so far as this identification of recollection and memory will not allow any other activity of the memory to be considered as the one belonging to the consciousness. I see, however, no reason why, in opposition to those experiences presented and to a thousand other experiences, the capability of recollection—that is, the reproduction of earlier conditions of irritation—may not be ascribed without limitation to the collective gray matter, indeed to the collective organized matter.

This thesis expresses one of the weightiest primary facts not only of psychology, but also of the history of the development of the organized world. We find that that something which was left behind in the organized matter by means of the function, and which was preserved in the conscious or unconscious recollection, is capable of inheritance and of further development.

The new-born man brings with him, as a legacy of the practice of an innumerable series of ancestors, a number of highly developed gifts into the world; without usually being conscious of their existence and of their complicated mechanism. If one strokes softly with the finger the cheek of a hungry new-born child, one can observe how quickly it turns the head and begins to suck the finger. In the carrying out of this highly purposeful series of movements, the soul of the child is doubtless as little in evidence as in the mimic reaction upon irritations of taste or as the soul of the frog that hops without the help of its brain. Here the stroking finger plays the same rôle as the irritation of the pincers; and the teleological purpose is the same, the maintenance of existence.

These considerations hardly need the application of the generally announced rule that, in each of these separate cases, whether that of the brainless frog or that of the child which exists with a still inactive cerebrum, in response to this or that external attraction, all those ganglia-cells and fibres which must coöperate for the

production of one of these muscle actions find themselves, under the influence of inherited practice, associated for the most wonderfully precise accomplishment of the purpose demanded. Moreover, it is nothing else than a different form of the expression of this essential characteristic of organized matter,—the coral insects and the mussels build themselves houses of the same type as that of their ancestors, and the plants produce out of seeds branches and leaves which are of the same type that plants have produced for thousands of years from the same kind of seeds.

We have here found again one of the essential traits of organized matter in the whole living world; and we have, moreover, convinced ourselves that certain forms of movement in the external world—through the whole series of vertebrates up to man himself—will be followed regularly by certain responsive movements. It would be indeed an easy task to trace these laws in their chief features even to the lowest forms of the animal world, but one would be deceived in the opinion that the separate organizations of the nerve system, if only in the class of vertebrates, was simply repeated after a definite plan, and that accordingly the function of the separate sections of the central nervous system, quite apart from its higher development, represented a simple repetition of the function of the similar section in lower orders of animals. If a man who has been deprived by sickness of the influence of the cerebrum upon the movement of the muscles is pricked on the sole of the foot, there occurs a reflex movement—essentially the same thing as in our first frog experiment. This movement has, however, nothing else in common with the hopping of the frog, and there is no optical regulation of a combined muscular action. In the presupposed case the man is, moreover, wholly crippled and the reflex motion is limited to a purposeless and uncoördinated attraction of the muscles of one or both legs. It is quite otherwise with a dog who has been deprived of the whole cerebrum. He is totally blind, but, if he remains alive, he learns, however, to walk again and is stirred by the irritation of hunger to restless wandering about. If we descend some steps in the animal world, we meet in a species of bird, the hawk, a yet smaller influence of the working of the brain upon the motions which are produced by

external irritations. These animals pounce with a scream upon moving mice and worry them with their claws until they are motionless; then they take no further notice of them. All these facts are proofs of the opinion already mentioned in somewhat different words, that functions which, in the case of man, belong to the cerebrum, are of the simplest form in the lowest vertebrates, and are localized in the spinal marrow. In the intermediate forms these functions partly leave the spinal marrow and advance continually toward the cerebrum.

These facts find their anatomical expression in the comparatively stronger development of the separate organizations of the middle brain existing in animals which are older in the scale of being (phylogenetically) than man, as well as in the development of the tracts lying between these organizations and the outer surface of the body. As an example of these we have already cited the strong development of the Lobi-optici and their functional value in amphibia and birds. If, with regard to this point, the separate species of animals are compared with one another, there arises straightway the large consideration that in the case of the phylogenetically younger classes of animals the middle brain continually decreases in mass, while at the same time the cerebrum and its connections with the middle brain continually increase until they finally form, in the so-called pyramid-tract, a direct centrifugal connection (which controls the collective voluntary movements) between the hemispheres of the cerebrum and the motor ganglia-cells of the spinal marrow. In fact the phylogenetically older species of animals do not need this one part of the twofold origin of the spinal marrow out of the brain, or, in advancing evolution, they need it in a lower degree, because their movements are much less inspired by the organ of consciousness, the cerebrum-cortex, but are prompted automatically by the organs of the brain through the sensory irritations projected upon them. The more the conscious voluntary movements, which are directly dependent upon associations in the narrower sense and consequently not upon sensory irritations, multiply and complete themselves, so much the more does the second cerebral origin of the spinal marrow, together with the gray cortex of the cerebrum-hemispheres, increase in power.

If we cast a glance at the whole construction of the cerebrum, we recognize therein the features of the anatomical mechanism which we met in the study of the simplest spinal reflex-processes. But this apparatus is constructed upon a far more complex and involved plan. In the spinal marrow only one sense, that of feeling, was represented, and this representation served only the relatively simple functions of the reflex transmission and conduction of the irritation. In the gray masses of the middle brain and in the small brain we found, indeed, collective senses,—with which the animal is endowed,—represented and associated functionally with one another for a relatively great number of actions. These actions, in themselves incomplete and purely mechanical, become, as we have already seen, still more incomplete and dependent with the ascent in the class of animals; and they advance partly into the brain where they compose themselves for expanded purposes and are associated with entirely new functions. The development of the cerebrum goes accordingly hand in hand with the origin and development of central sensory surfaces, upon which the movements of the external world are projected; and further with the development of new organs which arrange, preserve and associate the experiences of the senses thus acquired; finally with the development of a great centrifugally directed system which projects the sensory experiences thus acquired and the intercentral processes of movement into the spinal marrow, the periphery nerves and the muscles for the execution of bodily movements.

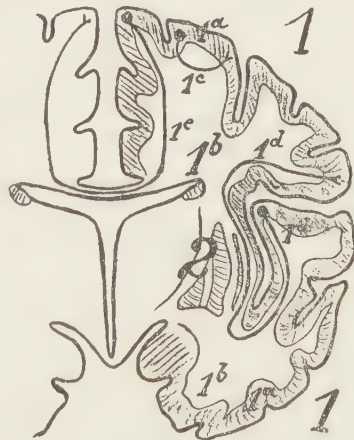


Fig. 3.

Cross section through the cerebrum. 1 Cerebrum. 1a The Cortex. 1b Marrow. 1c Short Association-Tracts. 1d Long Association-Tracts. 1e Commissural Tracts. 2 Middle brain.

In the cerebrum, as in the cerebellum, the gray cortex and the white marrow are distinguished. Ganglia-cells of different value are arranged in layers, and form the essential element of the gray substance. Single groups of

these are associated both among themselves and also with the group of the single sensory surfaces of the like hemisphere and, again, with the groups of the second hemisphere (commissural tracts), through manifold systems of nerve fibres in just such fashion as we have already described in the spinal marrow and in the middle brain; and they serve the highest purposes of the central organ, the communication of the actions of consciousness.

The central localization of the apparatus of movement is best known. If one opens the skull of a dog and irritates by electricity certain places of the front division of the exposed brain, certain muscles of the opposite side of the body, according to the choice of the places of contact, are set in motion. All voluntary muscles of the animal may thus be set in activity without its will. If the irritation continues, there is developed an



Fig. 4.

Surface of the dog brain seen from the left. 1 Irritation point for the rear extremity. 2 Irritation point for the front extremity. 3 Irritation point for the nerves of sight. 4 Irritation point for the vocal and eating organs.

epileptic attack with loss of consciousness. If the same experiment is made with a cat, a rabbit, a bird, and still lower vertebrates, essentially the same phenomena of movement appear, but these are less differentiated and the separate centres border less closely on the brain cortex. If one goes, on the other hand, to phylogenetically younger classes and species—lower and higher apes and man—one finds the single movements always more finely differentiated, so that, under the influence of irritation, they bear wholly the character of the voluntary movements of the individual, while at the same time the cortical centres are separated from one another by the insertion of non-excitabile islands among the centres of separate forms of movement.

If one or the other of these centres in the dog, the cat, etc., is destroyed with a knife or in any other way, a peculiar form of motion is then observed:—the animals can indeed still run (which is so much the easier to understand as we have already learned

that they are able to do so after the destruction of the whole cerebrum), but they behave during the continuance of this condition as if all conceptions for the condition of the parts of the body in question had been lost, as if indeed a part of the body no longer existed for their consciousness. They accordingly move their legs not in a coördinate or intentional fashion, but purely by chance, indeed with the upper part of their feet; they push, therefore, against objects, they step into emptiness, and they do not notice if one of their limbs is drawn under the body.

From these experiments it is evident that, in the brain-regions in question, the ideas relative to separate parts of the body in the consciousness are formed, or more exactly are associated, in such a way that the motions of the body are to be conceived as products of these associated ideas of motion; and motions, which are produced through electrical irritation, are to be regarded as products of the irritation of the central apparatus of motion.

If we compare these central functions with those of the central organs of lower vertebrates—for example in the case of the frog, which we have considered,—we find that similar disturbances which are localized in single parts of the body do not appear at all in these animals and that the destruction of the whole cerebrum does not cause the erratic motions described above. Accordingly what is necessary to the animal with respect to the continuation of his frog-existence is provided by his middle brain and cerebellum. In the higher mammals the same functions, however, in accordance with the thesis that has been presented, are moved forward into the cerebrum and are besides differentiated into centres of conception for the separate parts of the body. If, however, we trace the same functions in the cerebrum of phylogenetically younger creatures, for instance the ape and man, we meet a further carrying out of this creative ground-plan.

These centres are found in the lower mammals, as I have said, in the fore parts of the cerebrum, but in apes and men they are pushed back by the heavier development of the fore-brain to the middle of the cerebrum (Compare Fig. 5), and here they surround the central fork, as front and rear central coils, in close proximity both before and behind. While, in the case of the lower mam-

imals, this injury of a central region necessarily produced a disturbance of conceptions belonging collectively to that part of the body, not dissimilar to a local disturbance of consciousness, there is no such effect in the case of primates. Even in the case of apes injuries of the front central coil lead to motor paralysis, while, at the same time, the proof of disturbances of further conceptions, for instance those of the sensibilities, becomes more or less difficult. In men the centres of these conceptions are still more clearly

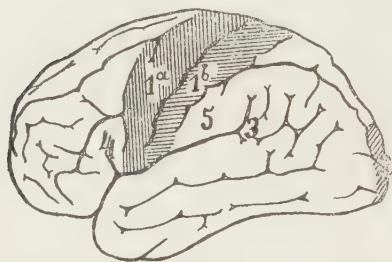


Fig. 5.

Surface of the cerebrum of men.
1a Front Central Coil. 1b Rear Central Coil. 2 Region of sight. 3 Sensory Aphasia. 4 Motor Aphasia. 5 Paralysis of touch.

and widely separated, so that the purely motor apparatus appear before the central fork, the sensory, on the other hand, are behind it. Consequently, diseased centres in the forward region lead to purely motor paralysis with no, or only transient, interruptions of sensibility; in the class of diseased centres in the latter regions quite the contrary happens. Sick dogs, suffering from

certain lesions of this region, lose the consciousness of the place and posture of their limbs, and consequently of the conditions of their muscles and joints and of a good part of the irritations affecting the surface of their skin.

If one takes away from a dog the whole of the lobe of the rear head he becomes permanently blind in three-fourths of the opposite eye on the outside and in one-fourth of the adjacent eye on the inside. If only part of this lobe is taken away the same phenomena appear and disappear again.

We have already seen above that the destruction of the whole cerebrum, consequently a very much greater mutilation, has not the same result in phylogenetically older classes of animals,—of birds and amphibia,—because the movements of these animals are conducted, undisturbed by the irritation of light. Only the conscious perception and the further association of these optical perceptions with perceptions of another origin are lost to them. Transient phenomena similar to those in the dog are observed in

the case of centre-diseases of the rear lobe in men. The man becomes in every instance partially blind forever, if the disease centre is located in the medial plain of the hemisphere, in that place where the fibres of the sight radiation (that is, the virtual continuations of the nerves of sight which come out of the middle brain at the point of their discharge into the brain cortex), lie especially near one another. In what way the dog and the ape react under attacks upon anatomically similar places, has not yet been sufficiently determined.

As motion and sensation are localized in the central coils and their vicinity, as sight in the rear lobe, so hearing is localized in the greater part of the temple lobe. Men and the more observed mammals become deaf after the loss of this region. A similar localization of smell and taste is completed in certain parts of the basis of the cerebrum. Accordingly we find all six senses localized, in respect to their conscious perception, in fixed regions of the brain cortex which are separated from one another. To each of these perceptions belongs, near the apperceptive, also an associative element; for it is quite impossible, without the coöperation of a large number of microscopic elements of the brain cortex, to see even the smallest image of sight. The activity of the consciousness fully unfolds itself, however, on one side through the associative coöperation of all these mental centres with one another, and on the other side through the associative coöperation of their activity with the activity of other new centres devoted to the association alone.

The disturbances of these functions, which may be studied in men alone, and which for the most part are produced by the interruption of conduction within the above briefly sketched systems of association, frequently in connection with the destruction of certain cortex systems, result in highly remarkable disease pictures; and indeed it is these which have revealed to us a deep insight into the work-shops of our consciousness. The conception of each thing is composed for each man out of a number of characteristics which he has earlier perceived with his different senses,—for example, the conception of a rose from the sight image, the image of smell, the image arising at the touch, the sound image of the spoken, and, in connection therewith, of the written, word “rose.”

If such a conception is aroused in our consciousness, and this process has been made externally perceptible through one of the different motions of expression, the undisturbed coöperation of all these centres and tracts is necessary.

By *mental blindness* is understood a condition of sickness (produced through centres in the front borders of the region of sight) which prevents the sick man from recognizing and from identifying the visual object by means of the sense of sight, although he has been in no way hindered therefrom by a partial destruction of sight. The sick man may, for instance, be able to see a knife very well, but he may not be able to arouse, from the image of sight, the conception of the knife, that is, he may not be able to recall the attributes of the knife. When this defect comprises in itself the bringing up of the word-image "knife," its linguistic attribute, in such a way that the sick man, who is not otherwise deprived of speech, is not able to recognize the knife which he sees, it is called *optical aphasia*. The conception "knife" appears, however, in his consciousness, as soon as his attention is stimulated through another sense, the sense of feeling, when the knife is placed in his hands. Now the sick man is able to find, and to pronounce, the word "knife." Exactly the opposite of this intellectual defect is represented by the paralysis of the touch, which is caused by the destruction of the lower part of the skull-brain. The sick man is able by means of the sight,—but in the case of the exclusion of the sight he is not able, by means of the touch,—to identify and to name separate objects, although the different qualities of the sense of touch are not usually demonstrably impaired.

In the description of mental blindness we have already met one trait of the combination of symptoms of aphasia made up of very manifold components. The destruction of speech which always attends this combination of symptoms is expressed in a very surprising fashion: for instance, when a part of the acoustic centre, that is the rear part of the first temple coil, is diseased, it reveals itself in word deafness or *sensory aphasia*. The sick in such cases are indeed able to hear and also to speak, but they do not understand the spoken word, and for this reason they are unable to repeat it. It is out of their power to associate the word that they

hear with the conception belonging to it, or with these ideas that transmit the spoken expression. It is sufficiently noteworthy that, in many of these sick persons, the musical memory suffers no loss, so that they are able to repeat whole melodies with the words that belong to them if one quickens associations by singing or whistling beforehand one or two bars of the melody. If this power is lost, then we speak of *amusia*.

If we carry back the interruptions of speech—which to a certain degree is permissible—to the system of the reflex, word deafness appears as a destruction of the centripetally directed apperceptive part of the reflex arch. *Motor aphasia* represents, on the other hand, a like destruction in its centrifugally directed motor expressive part. This image of sickness is produced by the destruction of the rear part of the forward coil, which borders immediately on the motor centres for the organs of speech, the muscles of the tongue, of the lips, and of the larynx. The image of sickness displays very different shades, by showing the want, partly of the single particulars by which the spoken word comes into being, partly of the production of the written word. It is characteristic of this form of sickness that the diseased persons, although they do not lack the corresponding conceptions, although they are able to understand the spoken word and rightly to associate it, and although they have not lost in other respects the flexibility of their organs of speech, are yet unable to speak all or most words and frequently are unable to write them. The function of this cerebral region consists of the transmission of every separate image of sound in its letters, syllables and words to the just-mentioned muscling, as well as of the production and coördination of such movements within this muscling. The spoken and written expression can, therefore, if even in a different form, be destroyed if the region itself is destroyed or its ways of association (whether they lead to the higher centres that form the conceptions or to the acoustic or optic centres, or whether they be the more centrifugally directed tracts) have been interrupted so that these images of motion can no longer be produced in the accustomed manner, or indeed can no longer be set in motion.

The enumeration of the separate interruptions of the speaking

processes and of those related to them is by no means exhausted and indeed cannot be in the limits of this essay. We must rather conclude these remarks with the presentation of the fact that the described images of sickness are found associated in right-handed people constantly with disease of the left hemisphere and conversely in left-handed people with disease of the right hemisphere.

The functions of which we have last spoken, have been derived collectively from instances of sickness which are produced through disorganizations of single parts of the brain. These parts lie almost exclusively between the central coils and the region of sight, and they fill out this portion of the brain surface in great part: only single aphasia-interruptions may be localized in the immediate front and basal neighborhood of the central coils. In the latter region, just as in the regions of the real mental centres, the apperceptive and motor component of the psychical process steps more into the foreground, while the associative component prevails in the central coils. On this account these regions and the area comprised by their little-explored neighborhood may be regarded as a centre of association in contrast to those other projection-centres upon which the sensory irritations are projected, or from which their immediate results are projected as motor irritations into the periphery.

While we distinguished above the mechanism of the maintenance of balance and the destruction of equilibrium, we discovered a real factor in sensations or conceptions of the lower order, which were associated in the middle brain and cerebellum out of the irritations issuing from single parts of the apparatus of motion. With these are associated the irritations which gather and play their part in the neighboring regions, and which arise out of the activity of the inner organs. In this communion, received into the consciousness, they form that group of perceptions which is usually termed the self-sensation or ego-sensation. How mighty an influence these processes exercise upon the feeling and thought, is shown by the determining rôle which the unhealthy changes of the self-sensation play in the majority of mental sicknesses.

What we have already learned of the functions of the nervous

system, if we consider them from a common viewpoint, may thus be defined:—that the phenomena of motion of the outer world, including those of one's own body, experience first a transformation into chemical processes, within the nervous system, at the time of their entrance into the latter; and that further transformations (whose psychical value is unknown and inaccessible to us) take place in the compositions of gray matter lying on the under side of the cerebrum; and that finally the products of the lower psychical activity which have been produced from so many changes are projected upon the cerebrum cortex, there to enter into the consciousness as conceptions of the most various kind.

In this synthetic consideration we could not enter upon the essential and in many ways little-explained psychical factors,—the feelings and emotions. It is certain that every conscious conception, while it is associated with other conceptions of the demands or restraints of one's own personality, furnishes the reason for sensations of pleasure or pain, which, after being raised more or less heavily above the point of indifference, enter more or less clearly into the consciousness as feelings and effective motions of temperament. If these, like all other psychical processes, have their root in the lower psychical centres, yet they play their part in the organ of the consciousness, the gray cortex. On the other side the phenomena of motion of the external world, which divide into simple sensory irritations, produce, by their transformation in the lower mental centres, sensations of pleasure and pain, which when the intensity is increased, enter, together with these sensory sensations, into the consciousness, and moreover, when the intensity is decreased, also leap over its threshold. Their existence is also proved in the latter case by the influence which simple optical and acoustic impressions produce upon the innervation of the breathing, the heart and the blood vessels. That these sensations arise under the influence of dazzling and harmonious impressions of light and sound, and that they combine with changes of respiration and circulation, is as evident as that the latter functions are influenced by emotions of any other intercentral origin.

Here again is found an interchange between the functions of

the lower and of the higher centres, in that the former are associated in an apparently independent complication of life actions. But indeed they carry over the product of their activity to the organ of consciousness, play there an important and authoritative rôle, and at the same time receive impressions anew. This interchange continues still further, for just as the circulation and respiration are influenced by the motion of the temperament, so the emotions can experience, under the influence of these changes, an elevation to the greatest height, which is followed upon both sides by a more or less suddenly appearing period of lowered activity. It is obvious that, under these circumstances, a representation of these organs which are wholly or chiefly derived from the influences of the will must take place in the cerebrum cortex; and indeed it appears that a more or less clearly localized representation of these, as well as of other similar organs and systems such as the digestion, the formation and secretion of water and the apparatus of sex, must be conceded in the cerebrum. Moreover, the investigations of the centripetal and centrifugal paths for these processes of irritation have no more reached a conclusion than the investigations in the district in which these paths end.

The functions of the brain, with which we have hitherto busied ourselves, and consequently their anatomical regions, are present in the higher mammals as well as in men. The central working of the mental impressions, their association, and their centrifugal projection are fulfilled in the one as in the other, according to the same primary laws; we even find speech more or less developed in these species of animals. This is, however, only a sound—an emotion—speech, and even in the case of the articulate speech of a parrot the movement is completed, more after the manner of the simple reflex. Acoustic word-forms in limited number are accompanied by the path of the nerves of hearing to the position of the sensory speech centre, there they are preserved and transmitted to the motor speech centre, which in turn projects itself outward into spoken words under a certain associative impulse. The one and most essential among these impulses belonging to man alone is lacking, namely, that impulse which arises through

abstract thought; it indeed appears very questionable whether the words of the parrot are associated with concepts, for example, whether he knows that he is calling his own name or that of his mistress, or that the word sugar means a white eatable, sweet substance.

In the first part of this essay we have already propounded the question whether the human mind—apart from the quantitatively higher development—does not differ also in quality from that of animals. One example may make clear what we have to say on this point.

Two dogs, who were accustomed to go rat-hunting together, were separated and the smaller dog was locked up in a yard and the larger in a garden. The larger dog soon learned by accident, in response to the calling bark of his companion, to push up the latch of the garden-door with his muzzle; and, when, upon the yard side, the door was closed by means of a string tied to the lattice-work, the smaller dog learned just as quickly that he could bite through the string; and so both Nimrods were accustomed to come together, just as before, for their hunting parties. But if the smaller dog was locked up in a stable that was closed by a latched door, then the cunning of the large dog proved itself insufficient for the raising of this latch.

From this experience some have been willing to conclude that animals form no conclusions and are not able to think. Such a conclusion as this may not be drawn from this single case, nor is it generally accurate. For us this example means something quite different. The mechanism of conclusion which is given by the process of association undoubtedly is sufficient to reveal to both dogs that the desired rendezvous is in causal relation with the pushing up of the latch and the gnawing of the string, just as the freely expressed joy of a pack of hounds at the appearance of the person who feeds them rests upon the conclusion that his appearance to-day, as on all days, indicates the nearness of a full meal, and just as the fox lurking near a dove cote draws the conclusion that to-day doves will come out, because every day doves have come out. But the experience that has been cited gives a very excellent example for the opinion that the soul of man conceives

within itself something absolutely new and foreign to the soul of beasts; accordingly, that it is not to be conceived of merely as a higher grade of development of the characteristics which are also present in the beast. The dog apparently does not open the latch of the stable door because, from the use of one latch, he is unable to derive the natural conclusions as to the nature, the purpose and the conception of latches considered as deductions. He does not even comprehend the latch which he uses. He is therefore universally regarded as limited merely to the experiences and conclusions that are derived immediately from sense-perceptions, while the derivation of secondary and of non-sensuous classes of conclusions (to say nothing of super-sensuous ones), and moreover the abstraction of the sensuous, and the power, granted to men in a certain degree, of penetrating into the nature of things, remain denied to him. The matter rests here, that an animal has never derived or ever will derive, classes of thoughts which, like the mathematical, rest merely upon abstract thought, nor is he able to make discoveries or to practice arts which he has not obtained by means of inheritance.

It is obvious that for this class of capabilities which, according to our opinion, constitute the essential difference between the human and the brute soul, *anatomical organizations* must be present *which are lacking to the brain of the brute*. We believe that we may find these in the powerful progressive increase of the frontal lobe in the primates, of which we have already spoken above.

This opinion, which has already been established in the preceding pages, receives further support through a more remote method of investigation not hitherto cited. The unceasingly various nerve fibres of the brain, which we have discussed above, come to their full maturity about nine months after birth. Before this period the brain in its anatomical relation is capable of exercising its functions, only so far as these tracts are matured. By particular methods of investigation it may be proved both in the foetus and in the new-born man that the projection tracts are actually first developed; and these are the very tracts that established intercourse between the cortex and the outer world. Those areas which lie between the central coils and the sphere of sight, and

which we have already spoken of above as centres of association, have just as little relation with the sections of the cortex serving these purposes as have the frontal lobe of man lying in front of the central coils. Indeed, there are found in both of these regions, in relatively small numbers, fibres of projection,—that is to say, fibres which connect the brain directly with the middle brain and the spinal marrow—while the regions everywhere abound in association-fibres,—that is to say, in those fibres which connect their separate regions partly with one another and partly with the single cortical sensory-surfaces. And the anatomical elements of these regions on whose functions the highest capabilities of the human spirit are based, come first to their completion, when the anatomical development of the cortical sensory-surfaces, upon whose functions the activity of the mechanism of association is conditioned, has reached its full maturity.

We shall now show in a few words that the results which have been reached by the methods of investigation already presented are confirmed by a number of other methods of investigation, so that our views of the functions of the central nervous system may be said to rest upon a thoroughly sound basis.

Comparative anatomy teaches us, as far as this study has advanced, that those regions of the brain, to which, for the reason cited, we ascribe fixed functions, keep pace in their development with the development of the corresponding functions in the separate species of animals. For example, in whales who possess no real apparatus of smell, the smell-centres are planned on a very small scale; on the other hand, in the mole, who is limited chiefly to his organ of smell, at the expense of the region of sight and the remainder of the smell-cortex, these regions are so developed that his brain is not much more than a great smelling-brain. Conversely the occipital sight brain is planned on a relatively large scale in birds whose existence is dependent chiefly upon the keen functions of the apparatus of sight; and with this, as we already know, are connected strongly developed optic centres of the middle brain by means of heavy fibre-masses.

Finally, the results attained are correspondingly confirmed by numerous experimental investigations in anatomy. If one de-

prives young animals of an eye, then the collective sight-centres which belong to this shrivel; and conversely the lower sight-centres deteriorate, if the corresponding cortical-centre is removed. In various other nerve regions there have been made analogous experiments, into which it will be impossible for us to enter at this time.

From the preceding explanations, brief as they may appear in comparison with the prodigious extent of the field of science under consideration, it cannot be difficult to frame for one's self an accurate picture of those processes which are comprised under the name of "soul," and to define the conception of this soul, as far as this is possible in the nature of the case; and accordingly to reach a decided attitude toward the monistic-pantheistic conception of the world which is discussed in the first part of this essay.

If we hurry over the traversed region once more and try to express in a short formula the knowledge that we have acquired, we may say in summing up that the psychical processes are most intimately connected with the collective and also the simplest life-utterances of the individual. There is an unceasing exchange of such a sort that processes are built up out of the coöperation of different processes and receive from them their contents and their form, while the thousandfold sources of irritation flowing together in the sea of psychical activity permit their power of motion to be added to the separate organs of the animal and vegetable sphere. It is a further result that, in the building up of the psychical activity the function of the lower elements, which serve only for the reception of sensory irritations and of their reflective transmission, is found again in the next higher organizations into which it enters as an integrating element, there to be worked up into a more complicated function; and that several progressive stages of a similar sort succeed one another, until in the last stage, the gray cortex of the cerebrum, all these infracortical processes are resolved into conscious processes. According to our conception the soul must not be regarded as a function of a single organ, the cerebrum or its cortex, nor as the sum of a series of processes which run parallel to the material processes; but we define *it as the aggregate of the functions of all the psychical elements composing the organism.*

From this it naturally follows that the soul is not an unchanging individual. Rather it is at every period something different from what it was in the preceding period and from what it will be in the following period. It has arisen out of the activity of the organs of sense, but experiences, however, no loss to its nature as "soul," if one or more of these organs of sense are lacking, or even if, as in the case of Laura Bridgman, both of the higher senses, those of hearing and sight, have been lacking from the beginning; we note only this difference, that the contents of the soul-activity in each of these special cases differ in a high degree from the contents of the average soul. Because the occupation of the soul, as we have already seen, is comprised in constant change, such a merely quantitative difference makes no real alteration.

If, now, the soul of every single individual is to be regarded as the resultant of the coöperation of all his psychical elementary processes, it is obvious that the possession of a soul, as Haeckel would have it, cannot be ascribed to the material sub-stratum of each of these single processes. Just so little as an arm or a leg or a stomach constitutes a man, although the possession of these belongs to the conception of a normal man, do the forces which exist in the structures belonging to these organs constitute a soul. Still less may we say that separate kinds of ganglia-cells composing the nervous central organs find themselves as favored "soul-cells" in possession each of its own cell-soul; but rather that all these kinds of cells, like the wheels of a united machine, are necessary for the undisturbed action of the mechanism.

Considered from another side, the theory of a soul cannot be proved necessary for the explanation of the simple processes of movement which have been studied by us—for example the reflex movements of the hopping frog. Other investigators, decades before the writings of Haeckel, were led by the design of these motions to the theory of a spinal-marrow soul. But we have already seen above that these motions in their appearance of design may be traced back to practice and heredity; and it remains only to consider whether anything, as Haeckel would have it, compels the opinion that a sensation lies at the base of these movements. Certainly we cannot speak of a conscious sensation, be-

cause the reflex motions in accordance with experience may run their course without stepping across the threshold of consciousness. Moreover, in connection with the study of the functions of the organs of balance, we have conceived of the existence of unconscious sensations, and we have justified this conception. Therefore it might well appear questionable whether there is to be found a convincing reason for supposing that such unconscious sensations exist in the reflex motions and then, as a consequence, in all the motions of the lower animals down to the Protista.

This is not to the point; but the result of the phenomena may be easily explained in a simpler and less far-fetched manner. Every irritation which strikes the nerves establishes in them chemical and physical processes, which are easily proved by galvanic multipliers and which may be traced through the central nervous system just as well in the irritation of centres as of the periphery. The theory is therefore completely justified that these processes, as they are transmitted from the periphery nerves to the elements of the gray matter of the earlier explained mechanism, establish a motion without the mediation of a sensation just as the galvanic stream sets the Morse apparatus in motion. We may very truly derive the existence of unconscious sensations (conceptions), as products of the extra cortical functions of the combined centres of the middle and small brain, out of the sum of the results of our experience and of the analysis of animal experiments; and thence we are led with great probability by an argument from analogy, with only one connecting link, to the existence of analogous sensations in the other sub-cortical organs of equal rank. But just as soon as these conclusions have been transferred to the more simply constructed nervous apparatus, or to the lower organisms, they are dissipated into hypotheses whose unsure basis forms a false identification of the phenomena of life, the psychical phenomena.

At the end it may be asked how far the experiences that have been presented lead to the understanding of the consciousness. From the very first the processes of consciousness are revealed as an object dispensing with every fixed limitation.

If I have determined to pursue a known way through the city,

I am guided, even if I am immersed in my own thoughts, along the path and chiefly on the street corners by the accustomed impressions of sight without any conscious consideration of my goal; and if, during a lively conversation with another, a third person who meets me raises his hat, I answer his greeting involuntarily without being forced to conscious considerations which distract me from the object of my conversation. These actions can, however, take place with the most various quantitative modifications in regard to the coöperation of the consciousness, according to whether I am more or less distracted from them by my thoughts or my conversation, or am led to them by the necessity of informing myself. There are certain investigators who have wished to conclude from this that in those cases in which the process takes place mechanically, the accosted is conscious of the meeting and of his action only after the completion of the greeting; but that up to this point the act was a purely material one and only became psychical from the moment of its entrance into consciousness. Thus they attain to the conception that psychical activity, soul and consciousness are identical. That this conception is not accurate, is sufficiently evident from our preceding discussion. But it is also made untenable if we consider the facts of the special case, because the elevation of the sensuous impression over the threshold of the consciousness and its intrusion into the viewpoint of the latter is only dependent upon the degree of attention; and the single possibilities (which form an unbroken chain) from the absolute non-consideration of the object of sight even to its clearest identification with the motor results arising therefrom are in no way qualitatively, but only quantitatively, different from one another.

As to the rest, our consciousness disposes of a countless number of conceptions, which, one after another enter every minute into the field of consciousness and disappear out of it; accordingly they form the contents and for this reason even if they do not attract attention to themselves, they cannot be disassociated.

The processes of consciousness are, in this way, actually shown to be without certain limitations, and it is obvious that a satisfactory definition of consciousness cannot be given at all.

The definition of Wundt, according to which consciousness represents the connection of collective psychical structures is not satisfactory, for the reason that the inner experience (foreign to every analogy) of the consciousness of single conceptions, does not find expression. In the renunciation of a clear-cut definition we must content ourselves with the circumlocution that lies in the preceding remarks.

Therefore, the consciousness appears doubly incomprehensible: in the first place because we are not able to penetrate into the psychical processes of the lower organization from which the soul and the consciousness are formed; in the second place because, in spite of all our scholarship, the matter still rests in the claim of Emil du Bois-Reymond that we are not able to comprehend how the consciousness can arise out of the coöperation of atoms. For this reason, also, a satisfactory definition of the consciousness is impossible, because in every case the first assumption is the comprehensive knowledge of the thing which one intends to define. At the end of this discussion we therefore come back to the old experience that to our understanding of Nature are assigned fixed limits beyond which we are not able to penetrate into the real character of matter, of energy, of space and time and, finally, of our own consciousness. But to those who believe that they have solved all of these riddles by means of their monistic-panthestic conception of the world we may confidently declare with the poet:

"There are more things in Heaven and earth, Horatio,
Than are dreamt of in your philosophy."

THE HOUSING OF CITY MASSES

ELGIN R. L. GOULD

THE scientific presentation of our theme naturally begins with an excursion into history. The quest would become tiresome if indulged in to any considerable extent at this time, and therefore I shall propose at once to my readers to think of the housing problem as a problem of great cities, in fact, to further narrow the range of study to the two greatest cities of the world—London and New York. The moral consciences of public-spirited citizens in these two great cities seem to have been aroused about the same time to an apprehension of the degradation, brutality and sickness resulting from the state in which a large proportion of the plain people lived. It was approximately fifty years ago when such individuals as the late Earl Shaftesbury, abroad, and Mr. Gerritt Forbes, Dr. John H. Griscom and Mr. R. M. Hartley, at home, were the main promoters of moral reflection.

Suppose we halt our inquiry for a few moments and read the descriptions which some of these devoted philanthropists have left us of the conditions existing at that time. In presenting his famous bill for the regulation of lodging houses in 1851, Lord Shaftesbury referred to a parliamentary paper dated 1842, which gave the results of a house to house visitation in St. George's, Hanover Square, reported by the London Statistical Society, and stated that "1,465 families of the laboring classes were found to have for their residence only 2,174 rooms. Of these families 929 had but one room for the whole family to reside in; 408 had two rooms; 94 had three; 17 had four, and but 17 over four." This was the condition in one of the best parishes of London. The greatest evil of that time was over-crowding. The report of the London Fever Hospital in 1845 contains the following statement in reference to one particular room, "It is filled to excess every night, but on particular occasions commonly 50, sometimes 90 to 100 men are crowded into a room 33 feet 9 inches long, 20 feet wide and 7 feet high. The whole of this dormitory does not allow more space, that is, does not admit of a larger bulk of air

for respiration than is appropriated in the wards of the fever hospital for three patients. As a consequence more than one-fifth part of the whole admissions into the fever hospital for that year—no less than 130 patients affected with fever—were received from that one room alone.” Earl Shaftesbury quotes at length one of the city missionaries, as follows: “In my district is a house containing 8 rooms, which are all let separately to individuals who furnish to re-let them. The parlor measures 18 feet by 10 feet. Beds are arranged on each side of the room. In this one room there slept, on the night previous to my inquiry, 27 male and female adults, 31 children, and 2 or 3 dogs, making up in all 58 human beings breathing the contaminated atmosphere of a close room. In the top room of the same house, measuring 12 feet by 10 feet, there are six beds, and, on the same night there slept in them 32 human beings, all breathing the pestiferous air of a hole not fit to keep swine in. The beds are so close together, that when let down on the floor there is no room to pass between them; and they who sleep in the beds furthest from the door can, consequently, only get into them by crawling over the beds which are nearer the door. In one district alone there are 270 such rooms. These houses are never cleaned or ventilated; they literally swarm with vermin. It is almost impossible to breathe. Missionaries are seized with vomiting or fainting upon entering them.”

The London Statistical Society examined in 1848 what was known as the Church Lane District in Bloomsbury, one of the filthiest and unhealthiest in the metropolis. It is described as “A picture in detail, of human wretchedness, filth, and brutal degradation. In these wretched dwellings, all ages and both sexes, fathers and daughters, mothers and sons, grown up brothers and sisters, the sick, dying, and dead, are herded together. Take an instance—House No. 2, size of room 14 feet long, 13 feet broad, 6 feet high, rent 8s. (\$2.00) for two rooms per week; under-rent (sub-let) for 3d. (6 cents) a night for each adult. Number of families, 3; 8 males above 20, 5 females above 20, 4 males under 20, 5 females under 20; total, 22 souls. The landlady receives 18s. (\$4.50) a week; thus a clear profit of 10s. (\$2.50). State of room filthy.”

Such, I would not say, were typical conditions, but at least were conditions sufficiently current in the English metropolis half a century ago to arouse the attention of parliament and cause that body to abandon its "let alone" policy and to begin a line of intervention which, broadening from the narrowest beginnings, designed only to deal with the worst and most dangerous forms of overcrowding, has finally reached the provision of model tenements for the people built under municipal direction and control by municipal taxes and credit.

It will be interesting later on to trace the progress of this movement, but in the meantime let us return to our own city and see if, in the new world, the conditions of 1850, or thereabouts, were any better than in the metropolis of the English speaking race.

In 1842 Dr. John H. Griscom, the City Inspector of the Board of Health, published a pamphlet entitled, "A Brief View of the Sanitary Condition of the City," in which he set forth many illuminating facts. He finds, for instance, "that 1,459 cellars, or underground rooms, were being used as places of residence by 7,196 persons, and that there were as many as 6,618 different families living in courts or in rear buildings." With regard to the influences, says he, "of these localities upon the health and lives of the inmates, there are, there can be no dispute, but few who know of the dreadful extent of the disease and suffering to be found in them. In the damp, dark and chilly cellars, fevers, rheumatism, contagious and inflammatory disorders, affections of lungs, skin and eyes, and numerous others, are rife and too often successfully combat the skill of the physician and the benevolence of strangers. I speak now of the influence of the locality merely; the degraded habits of life, the filth and degenerate morals, the confined and crowded apartments, and the insufficient food of those who live in more elevated rooms comparatively beyond reach of the exhalations of the soil, engender a different train of diseases sufficiently distressing to contemplate; but the addition to all these causes of the foul influences of incessant moisture and the more confined air of underground rooms

is productive of evils that humanity cannot regard without shuddering.

"The overcrowded state of many tenements and the want of separate apartments are prolific sources of moral degradation and physical suffering. They operate directly, vitiating the atmosphere already too confined for a moiety of the inmates, while by the close approximation of both sexes of all ages and relationships, and often of no relationship except necessity, and a too familiar intercourse of parents, sons and daughters, without partition or curtain to shield them night or day, sleeping in the same room, and often in the same bed, there are created an indifference to the common decencies of life and a disregard of the sacred obligations of moral propriety, which result in a depressing effect upon the physiological energies and powerfully heighten the susceptibility to aggravate the type and render more difficult the cure of disease among them. The incidence of parallelism of moral degradation and physical disease is plainly apparent to an experienced observer.

"A due regard for the health of the citizens and residents would justify the city legislature in prohibiting cellars as dwellings; in requiring the owner or lessee to keep all the out and in-door premises clean and free from everything likely to prove injurious to public health; and an immediate stop should be put to the practice of crowding so many human beings in such limited spaces as we often see them. The wise prohibition to carry more than a graduated number of people in sea-going vessels should be extended to dwellings on land. If there is a propriety in the law regulating the construction of buildings in reference to fire, equally proper would be one respecting the protection of the inmates from the pernicious influences of badly arranged houses and apartments. The power given to a magistrate to pull down a building whose risk of falling endangers the lives of the inmates or passers-by, may, with equal reason, be extended to the correction of the interior condition of tenements when dangerous to health and life. The latter should be regarded by the legislator and executive with as much solicitude as the property of citizens."

In 1853 the Association for Improving the Condition of the

Poor began not the least prolific of its many splendid efforts for the city's good by appointing a special committee "to inquire into the sanitary condition of the laboring classes, and the practicability of devising measures for improving the comfort and healthiness of their habitations." The committee reported that there were "thousands of poor persons, but comparatively few buildings suitable for their accommodation; most of the houses are those which were formerly occupied by the wealthy who have removed up-town, and now in their dilapidated state many of them are tenanted by miserably poor Irish and German emigrants. Large rooms have been divided by rough partitions into dwellings for two or three families (each, perhaps, taking boarders), where they wash, cook, eat, sleep and die—many of them prematurely, for the circumstances in which they live make fearful havoc of health and life; and, in addition, night lodgers, homeless men, women and children are not unfrequent, and for a trifling sum they are allowed temporary shelter. There, huddled together like cattle in pens, the inmates are subjected to the most debasing influences. Many of the dwellings, moreover, are out of repair, and the yards, from neglect of the sinks, are in so vile a condition that they can scarcely be stepped into without contracting filth of the most offensive kind. Crazy old buildings—crowded rear tenements in filthy yards; dark, damp basements, leaky garrets, shops, outhouses and stables converted into dwellings, though scarcely fit to shelter brutes—are the habitations of thousands of our fellow-beings in this wealthy city. . . .

"The best habitations for laboring classes in this district (4th, 5th and 6th wards) are the recently built tenement houses; but these are overstocked with inmates, and in many instances very badly arranged; the sleeping rooms, for example, are frequently without means of ventilation, being dark or having windows 18 inches square with fixed lattices." The general conclusion of the committee was that "the dwellings of the industrial classes in New York are not adapted to the wants of human beings, nor compatible with the health or the social or moral improvement of the occupants."

Up to about fifty years ago sanitary legislation, in so far as

the housing question was concerned, had practically no existence on either side of the Atlantic. But with the gradual recognition that existing conditions could not continue, legislative intervention began in this sphere, hitherto considered sacred from interference. We have successively in England a series of statutes extending this intervention of public authority. First of these is the Common Lodging House Act of 1851, and the Laboring Classes Lodging House Act of the same year. This latter law "aimed at increasing the number of houses suitable for workingmen by facilitating the establishment in populous districts of well ordered lodging houses." It was a permissive, not a mandatory act, but it was taken advantage of by a good many of the local governing bodies, called "vestries," in London after the passing of the Metropolis Management Act of 1855. It may be said that the main sociological purpose of the act was to minimize the herding together of the poorest classes in the manner already described. With this accomplished, families would partially be relieved from the worst surroundings. Thus, at the very beginning of reform the people considered were the very poor, and the money expended came out of that part of local taxation denominated the "Poor Rate."

The Common Lodging House Act of 1851 was intended to improve the quality of dwellings. This act really dealt with the transient poor, but it marks an advance because it provided for inspection, the notification of infectious diseases, the keeping of such places in good sanitary condition and repair, and the separation of the sexes amongst the occupants.

The landmarks of housing legislation are the Nuisances Removal and Sanitary Acts of 1855 and 1866. In these we find an extension of intervention in relation to overcrowding, and fuller powers given to local sanitary authorities. Next come the Laboring Classes Dwellings Houses Acts of 1866 and 1867, dealing mainly with powers of borrowing, possessed by local authorities, and provisions for repayment of money borrowed for such purposes.

In 1868 there was passed the Artizans' and Laborers' Dwellings Act. This measure dealt with individual houses, and the

principle assumed was that "the responsibility of maintaining his houses in proper condition falls upon the owner, and that if he fails in his duty, the law is justified in stepping in and compelling him to perform it." Medical officers of health were appointed in London by the several vestries and district boards, their duty being to report to such boards any premises in a condition unfit for human habitation; the boards were then held bound to ascertain the cause of this condition and to remedy it, serving the owner of the premises with notices specifying what was required to be done and an estimate of the cost. Appeal could be had, and if the boards neglected their duty, proper action might be secured from the Secretary of State. Provision was made also for the total demolition of insanitary houses, in the first place by the owner, and upon his default by the vestry or district board; for the payment of compensation for expenditures incurred on premises by means of a charging order upon the property improved; for the limitation of the expenses to be incurred under the Act (which were to be paid out of the local rate); for the borrowing, subject to the sanction of the Treasury, by a vestry or district board from the Public Works Loan Commissioners, and for the imposition of penalties upon persons obstructing a vestry or district board's officers in their duties under the Act.

The Cross Act of 1875 dealt with "whole areas, where the houses are structurally so defective as to be incapable of repair, and so ill-placed with reference to each other as to require nothing short of demolition and reconstruction to bring them up to a proper sanitary standard."

The general motive underlying this law was a good one, but the procedure authorized was complicated and costly. The net result was that in defiance of representations by the medical officers of health as to the irretrievably unsanitary character of houses in certain slums, landlords packed their houses worse than ever, padded their rent rolls, and secured fancy prices, the sums paid were often as large as that given when the houses were new and in good order. The Act was therefore amended in 1879, to provide measurably against this contingency. Slum houses condemned to be torn down were thenceforth to be paid for on the

basis of estimated value after deducting the sum required to put them in good, habitable condition. Provision was also made in other parts of London for sites upon which to re-house the people displaced through condemnations for sanitary purposes, leaving the original slum free to be sold for commercial purposes if that were thought to be more desirable. At the same time the Torrens' Act of 1868 was amended in the direction of provisions for compensation and rebuilding.

Notwithstanding the passage of these various laws and theoretical provisions for sanitary amelioration in old houses and districts, and for the construction of better homes, it was soon found that all these measures, and the subsequent Artizans' Dwellings Acts of 1882, were inadequate to cope with the situation. Accordingly a Royal Commission on the Housing of the Laboring Classes was appointed in 1884-1885. One of the principal features of the report of this commission was the statement that "there had been failure in *administration* rather than in *legislation*, although the latter is no doubt capable of improvement."

The Act which followed the work of this commission substituted the Metropolitan Board of Works for the local vestries and district boards in principal matters pertaining to the administration of the various housing acts. The London County Council became the successor of the Metropolitan Board of Works in 1888, and the question of housing has ever since been one of the important lines of activity of this great municipal legislature, and one of the first results was the consolidating enactment of 1890, passed by parliament, and known as the "Housing of the Working Classes Act." The new feature of this measure was, mainly, that compensation, where authorities pulled down buildings, cleaned out slum areas or widened any necessary street, should be based upon the fair market value at the time of the valuation, without any additional allowance for compulsory purchase, and that due regard must be had to the nature and condition of the property and the probable duration of the buildings. In fact, the value of the property was fixed by the value of the land. This is undoubtedly the proper principle, and it has made expropriation for sanitary purposes so much easier and effective in London than in New

York. Where wholesale demolition has taken place, provision must be made for the re-housing, to the satisfaction of the Home Secretary, of not less than one-half of the population displaced, if possible by sale of the land to private builders who will construct the buildings.

In London, indeed in all English urban communities, there is now no provision whatever limiting the power of the local authority to build houses and let them to the working people when they see fit. In order to do this land must be purchased compulsorily and "no lease, settlement, entail or other private arrangements can deter a local authority from acquiring it." A ten per cent. in addition to a fair market valuation is usually allowed for compulsory purchase, but this value is determined in case of dispute by a single arbitrator who is an appointee of the central authority. The powers of the Municipal Councils under this act are very broad. After they have acquired the land they may utilize it either by leasing it to builders, building companies or coöperative societies of workingmen for the erection of workingmen's dwellings, or they (the councils) may erect tenement houses, lodging houses or workingmen's cottages, or purchase and improve or reconstruct existing houses of this class, selling such houses, if desirable, after a period of seven years. The London County Council has since been modified by the Local Government Act. The London Borough Councils may create obligations in order to secure money for the purposes outlined above. The former body, with the assent of the Treasury, may create consolidated stock, repayable within 60 years, while the London Borough Councils, with the consent of the County Council, may borrow from the County Council or from the Public Works Loans Commissioner with a repayment period in the first instance of 60, and in the latter of 50 years. These bodies are also, under an amendment passed in June, 1900, not only given authority to purchase land outside their areas, as already authorized in the Act of 1890, "but they have power to hold such lands against future needs." One very important feature of the laws of 1890 is the permission given to a person occupying a portion of a house, or the

house itself, to sue his landlord and recover damages for any loss incurred because of the insanitary state of the premises.

Thus it will be seen that in half a century the movement for housing reform in London has proceeded from the first faint recognition of the most primitive of human rights, the right to live, and the tentative authorization to local governing bodies to draw hazy distinctions between living and existing, to the condition prevailing to-day where existing properties are under rigid sanitary supervision, where building laws require fixed standards of construction and accommodation, and where municipalities or integral parts of municipalities are given the authority to clear out slums, purchase land, erect and operate houses thereon, and also to go into a neighboring municipality, purchase or condemn land and build or hold it for future building in order to adequately provide necessary housing accommodations and to set an example to private enterprise. Truly the pendulum has swung far round.

Turning to New York, we find no such radical denouement as has taken place in the English metropolis. The first tenement house act bears the date of 1867, following logically the report made by the famous Council of Hygiene two years earlier. The Council was the outgrowth of a citizen's movement, which delegated the practical work of inquiry and report to a committee of leading physicians. This action was taken, not because the public recognized the justice of ameliorating the conditions under which the majority of the poor lived, but rather because of the fear engendered by the tremendously high death rate of the city, and reflection on the ravages of cholera and other plagues.

It is not necessary to speak in detail of this first tenement house law. At best we have the beginnings of improvement. Absolutely dark, unventilated sleeping rooms were forbidden, *i.e.*, every bed-room must at least have secondary access to light and air even though a meagre sized transom represented such access. Sanitary conveniences were also enjoined in the ratio of one water-closet, or privy, to every twenty occupants. The occupation of basements or cellars, either for work or for sleeping purposes, was not allowed without permission of the Board of Health. Certain reasonable distances between front and rear buildings, and be-

tween the rears of buildings on parallel streets were enjoined. The intention of the law-makers was doubtless good, but they thought they could not, at this period of transition, regulate such matters *absolutely* by law, and hence the *discretion* given to the Board of Health to modify requirements lessened the intended advantages. There are a great many prescriptions in this first tenement house enactment which might be mentioned except for the tediousness of detailed statement, and many of these minor matters marked a considerable advance in sanitation and comfort of living. It is, perhaps, too much to expect that, at this early state, law-makers would find sufficient public sentiment behind them to justify serious attempts to prevent the overcrowding of buildings upon space which was fundamentally the harmful feature.

The Association for Improving the Condition of the Poor, continued its helpful coöperation with the newly established Board of Health, agitated the subject through intervening years, and was thus a large factor in framing public sentiment to demand further improvements in the law; a modified enactment was passed in 1879. By this time public sentiment had advanced far enough to permit what would originally have been regarded as an intolerable encroachment upon the rights of property owners, viz., the limitation of the percentage of the lot which could be built upon. But it is interesting to see that law-makers were not yet prepared to eliminate entirely the question of discretion and left the exercise of the law, as before, to the Board of Health. But far better facilities for inspection of all tenement houses were afforded in the new law, and an attempt was made to improve the sanitation of sleeping quarters by requiring, *unless otherwise permitted by the Board of Health*, direct access to the outer air.

The tenement house law was further amended in 1887, after the report of a commission, presided over by Dr. Felix Adler, had been made. While the report of this commission was comprehensive and called for many useful and necessary changes, the main results were the better ventilation of halls, more adequate provision for sanitary conveniences, and regular semi-annual inspection of tenement houses by an enlarged force.

The work of the Tenement House Commission of 1894, of

which Mr. Richard Watson Gilder was chairman, was conspicuously useful in securing provisions for small parks and also playgrounds in connection with new public schools, and the subsequent provision of rapid transit facilities, the establishment of free public baths, drinking fountains and public comfort stations, and also in effecting desirable changes in the technique of the law itself.

The present tenement house law of New York resulted from the careful and painstaking efforts of the Tenement House Commission of 1900, of which Mr. Robert W. deForest was chairman. While the proposed enactment of 1901 was in the legislature and before the governor, the enemies of tenement house reform marshalled their forces for a final struggle, because it was seen that this commission proposed to deal with the most radical defect in the system of building tenements in New York, viz., the utilization of the 25 feet by 100 feet lot, in such a way that light and air could not be effectively introduced into the interior rooms. The viciousness of a system which had become ingrained in building practice, had been sufficiently demonstrated historically by the failures of previous enactments to touch the most vital part of the whole housing problem. It had been reiterated again and again by the friends of tenement house reform that the standard New York lot could not furnish ground for a proper building when the minimum requirements of the law for the covering of space were met. On the other hand, opponents of tenement house reform insisted that to yield further in this question of the right provision of open space would render building enterprise commercially unprofitable, and that to attempt to interfere with custom would mean the wholesale raising of rents and the entire stoppage of further business.

The law has now been in force three years. Building on a lot 25 feet by 100 feet has been made almost commercially unprofitable, but building has not stopped. Tenements erected under the requirements of the law, although on larger units of ground, are seen to be profitable, and in the long run, because better built, they will prove more satisfactory as investments. Opponents can perhaps point to the fact that in the last few years less build-

ing has been done than during the five years previous to 1901, but it must be remembered that the last two years have been exceptional on account of strikes and lockouts, in which practically all of the building trades have seriously been affected. The practical effects, from the sanitary and sociological points of view of this part of the new law, show immense gains for the cause of tenement house reform, and will be tremendously helpful to future generations.

The greatest evil in New York's tenement situation has been overcrowding upon space. No city in the world can compare with it in this respect. There are individual blocks in New York city to-day of a size 800 x 200 feet which contain from twenty-five hundred to four thousand souls each, or a larger population than many country towns. What, think you, must be the result of herding people together in such a way? Nowhere in the world has there been such overcrowding as this. The nearest approach to it is in Bombay, and there it is not nearly as bad. If we were to compare London with New York, it is perfectly safe to say that the overcrowded areas in the two cities, in point of density of population, would bear a ratio of approximately 3 to 10. If the tenement house law of 1901 had done nothing else it would have furnished the greatest boon to future generations ever given by American enactments of this sort in its restriction of overcrowding buildings upon lot space, thereby abolishing the iniquitous light shaft, and giving every room direct access to light and air.

Another very useful provision of this law was the creation of a local tenement house department with the dignity and powers of a regular branch of the city government. The previous system left undefined spheres of authority between the Board of Health, the Building Department and the Fire Department, but the new Tenement House Department, with its separate commissioner, deputies and skilled force can, if the requirements of the laws and regulations are insisted on, do a vast amount to ameliorate living conditions in existing tenement houses, with all their drawbacks, structural and otherwise.

Another important improvement is provided for in the new

law is better protection against fire by a wider application of fire escapes and better structural character for these avenues of safety. If we had before us somewhere a distinct record of deaths due to neglect of landlords or inspectors and to other preventable means, we should have statistics that would be perfectly horrifying in their magnitude. Familiarity with fatal events, which have happened and unfortunately still happen with consistent frequency, seem to have generated in the minds of many the feeling that "they are the acts of God," simply unpreventable casualties.

The social policy of New York city has never contemplated the construction and operation of workingmen's houses by the local government. In this respect, and here is the vital difference between the latest results achieved by English and American legislation, even expropriation of irremediable insanitary individual houses has not gone very far with us. While great things were expected from the law of 1895, very little has actually been done except in the case of rear tenements. As for the demolition of large areas and their upbuilding by the municipality, no serious project of the sort has been presented for consideration. Certainly the American judiciary would have to stray a long distance from their present range were they to interpret as constitutional any new law which gave to municipalities the right to purchase, compulsorily, land for the purpose of operating houses designed as homes for plain people.

The historical aspects of the housing question are of such great interest and are so important for an understanding of the progress that has been made in half a century, that the limits of a single article could not well contain an account of the practical results which have flowed from this legislation. These matters will form the burden of our narrative in the next number of this magazine.

THE TEMPERANCE PROBLEM AND THE SUBWAY TAVERN

JOSEPH JOHNSON, JR.

THE preachers have exhausted their precepts and advocates have proved beyond peradventure that intemperance is the greatest of social ills, but as yet they have not given a fair statement of the liquor problem.

The Prohibitionists urge that the only question worth considering is: How can the liquor traffic be abolished?

In the editorial criticism of the Subway Tavern I have often seen something like this: "The Subway Tavern is a compromise with the devil. It is like the Missouri compromise with slavery. Compromise did nothing. The abolitionists ended slavery."

There is a great difference between Prohibition and Abolition. No slaves were held or sold in the Abolition States. Whiskey is sold or drunk in all the Prohibition States. Prohibition has not the moral weight of efficiency. It is a good scheme that does not work. It is a theory that is but half practiced. It was stronger yesterday than it is to-day. It is worse than a compromise with the devil, because a compromise is a confession, and honest to that extent, and Prohibition is a pretension.

When I study the statistics of intemperance I am bewildered, for the figures given by the National Temperance Society show that arrests for drunkenness fall off on the heels of Prohibition, yet the best and completest work on temperance ever written, "The Temperance Problem and Social Reform," by Joseph Rowntree and Arthur Sherwell, shows that arrests for drunkenness are more numerous in Prohibition communities.

It is better that Prohibitionists remain Prohibitionists, for no cause is hurt by idealization, and every good endeavor is helped by the human concept of perfection. The highest reverence should be paid those who persuade men not to drink at all. But in America Prohibition is practically impossible without a Constitutional amendment, because no State, under the interstate commerce laws, need stop drinking on account of Prohibition. How-

ever, I would not persuade a Prohibitionist from his views, for real lands were discovered by those in search of the golden fleece. On these lands are real people with real problems, which were hidden but for the Argonauts of Prohibition.

On the other hand, Prohibitionists should not revile those equally sincere, who believe that the more pressing issue is: How shall the liquor traffic be regulated and controlled?

We who believe that this is a fairer statement of the real issue also acknowledge the existence of the liquor traffic and admit that the methods of its conduct make a terrible evil. We, too, regard the traffic as a palpable enemy, ready at all times to engage in a hand-to-hand conflict. But if the traffic is better regulated *something* is done. On the other hand, if Prohibition wins, it does not, or cannot, prohibit. It is a reform in name. It is a sham victory. The enemy is not annihilated. He does not even surrender and the victor must go shouting his hurrahs without the spoils of war.

The problem cannot be expressed in statistics. Statistics prove merely the extent of the evil. Everybody concedes that too much alcohol is drunk in America. Everybody ought to concede that nearly all that is drunk represents economic waste and moral degradation. But nothing that has been done promises to stop the traffic in and consumption of liquor in our time. Despite the efforts of everybody the traffic is still with us, without apparent signs of weakness. As a Republic in which every citizen has a voice, we have not voted to stop the making of alcohol to be used as a beverage. We have not taken away the right to make it, and a right that is left is a lawful right. Affirmatively, therefore, the Republic favors the making of alcohol as a beverage. The only problem, then, that really exists, admitting, as we must, the full evil of the traffic, concerns the regulation and control of the traffic.

How is this traffic now conducted?

First the beverage is distilled, brewed or fermented, and practically anybody may brew, distil or ferment it, provided he pay a certain tax to the Government. The tax is the Government's admission that it favors an evil traffic. The Federal Government

taxes the beverage, first by the gallon, and afterwards again taxes those who retail it. The State Governments tax chiefly those who retail alcohol. This is the extent of the governmental ban. The Government has no scruple in taking this money. It gives it back to the people in public works, but not in public works of a character aimed specifically to combat the evil it allows. Some of it goes to post-offices, to the making of battleships, to the army, and to the harbors. Thus it is come about that the expenses of government are met in a considerable part by a grant to a traffic detrimental to the citizens. It does what no self-respecting private citizen would do—it licenses an evil. Our soldiers are in part fed and clothed by inebriates. Drunkards contribute in part to the pension fund. The weak and low pay their mite, indirectly, to the digging of deep harbor channels and to the arming of our coast defenses. The Government is in actual partnership with a vice that pays.

Here the Prohibitionist will say: We have stated his case: the liquor traffic must be stopped. But he is begging the question. The Government has decided that this traffic cannot be stopped. The Government, therefore, is getting money from an evil it cannot prevent. The fault is that the Government profits from the evil; it cannot approach a solution of the problem without a clean conscience. Its revenues must not be contingent upon the volume of the traffic.

It is true that the tax itself constitutes the governmental frown, and if the traffic were allowed to exist without a tax it would grow from a monstrous evil into an atrocity. It must be taxed. It should be taxed high. It is. The tax is more than twice the average value of the whiskey per gallon.

Then we have arrived at a contradiction. We have shown that the Government is immoral and dishonorable when it imposes the taxes, and we have said that the tax must remain. Restitution suggests the only way of escape from this contradiction.

If the Government must tax an evil, it must combat it. It may not merely acknowledge the existence of the evil thing. Governmental action should be positive and not neutral against an evil—yes, even against that which appears to be a necessary evil.

Send the money back whence it came. Does it come from the distiller? Immediately, yes; remotely, from the drinker and the drunkard. Send the money back to the home and the family. The system would be too intricate, at least it appears now too intricate for the writer's solution, by which the Government could restore the money; therefore the system of restitution could only be applied by the State Governments which tax the retailers. It will presently be pointed out that the application of the principle would lessen the manufacture and consumption of liquor. The plan would give the National Government a cleaner conscience, because year by year it would be taking less from its licensing of the traffic.

In the State Governments this plan is clearly practicable. If New York State, for instance, now receives \$10,000,000 a year in its excise fund from New York City, let the State return \$5,000,000 for the specific purpose of combating intemperance. The way to combat intemperance is to popularize innocent recreation, and the \$5,000,000 should be expended in recreation centres, parks and amusement places. Statemen will ask, How shall the State, then, raise its revenue? The answer is: It will soon come to need less revenue for the administration of its penal, corrective and detentional institutions; and shortly, by the greater virtue and energy of its people, larger sums of legitimate wealth will be offered for regular taxation.

The temperance problem is a recreation problem. The hours of labor must be followed not only by hours of rest, but by hours of recreation. Men can rest in solitude, but since history began they have "re-created" in company. Intemperance follows drinking. It does not follow the desire for company. It is the State's duty first to support the instinct of recreation. Recreation in New York City, in the majority of male cases, is now obtained in saloons, and drinking has debased the innocent and essential desire for company.

Let us suppose that a part, say half, of New York City excise contribution were returned to it in forms of innocent and healthful, yet exciting recreation—in parks, halls, gymnasias, music palaces, public theatres, public bowling alleys and outdoor sporting

mediately the State is in proper competition, not partnership, with parks and simple places of mere assembly and refreshment. Im-the saloon, and is drawing away from the saloon those who seek it primarily to escape loneliness. Surely the initial temptation to drink would, in a measure, be removed.

But now the tenement-dweller has no choice. He is not willing to be lectured or even preached at by those who would uplift him. Libraries do not satisfy the craving for rest and enjoyment. He must gossip. He must play. He must hear laughter and music. He is seeking happiness, not edification. He must find his own kind at its own pleasures. Where else, now, are these to be found outside of the saloons of New York City? This plan ought gradually to curtail the power and attractiveness of the saloon, and as the saloon's popularity is diminished, its substitute would gain at the same time a firm foundation.

But under this plan the saloon would not entirely disappear, and those that remained would still be saloons, and the saloons would still be run in the interest of profit, which is at the root of the evil. Even the State's competing play places would fail to eliminate the saloon as endowed for those who have learned to love alcohol for its own sake. The saloon would still hold them and no play place or park could take the inebriate away from the saloon. The saloon-keeper would make his place more attractive than ever, and he would still have many customers.

The problem is to control and regulate the traffic that remains. If the saloon-keeper cannot make money he will retire from business. He is as other salesmen. He must sell much to make much. But other salesmen are not urged to push their sales by an enormous special tax. This tax, \$1200 a year in New York City, itself is the cause of evil. Many saloon-keepers in New York City would have to quit business if they conducted decent places. They could not pay the State \$100 every month, \$25 every week, and still refuse to sell the drunkard and the prostitute. New York State, in this connection, actually puts a premium on immorality when, in permitting liquor dealers to sell all night, it also commands them to conduct hotels, and so it is that the majority of Raines-law hotels in New York City are houses of

assignation. Therefore the Government would only half do its work if it gave its ban money back to the communities for play places, while it still continued to license the saloons that were left.

There is but one recourse. It is for the State to quit the saloon and hotel business and leave to private capital the questionable business of retailing liquor. The law must eliminate the element of private profit. The plan in New York City would be to grant, according to excise districts, the right to sell liquor to monopolies in those districts. These districts should be smaller perhaps than assembly districts. The actual selling, over the bar, should be done only by a salaried individual who would have no interest above five or six per cent. profit for his company. The State official should occupy a position analogous to a State banking official, whose duty it is to see that savings banks are little more than administrative institutions. The surplus, if any, made by these companies should go into the fund for the play places and recreation centres.

The plan would seem to present tremendous administrative difficulties, were it not for the fact that it is already the system of selling liquor in Norway and Sweden—a system which has changed those countries from the most intemperate to the most temperate in Europe. If the cry goes out from serious-minded men for municipal ownership of street railway systems, why should it not go out for a State-supervised system of liquor-selling monopolies? Which would present greater difficulties? Is the national post-office more difficult to administer than the monopoly system would be?

The Subway Tavern is an experiment along the lines indicated here. It has no State aid, but it is trying to eliminate the rudimentary danger—private profit. No man is urged to drink and all are urged to drink in moderation. In a prospectus read more than a year ago before the City Club, the writer outlined a plan for a model saloon. This prospectus set out that the capital stock would be \$20,000, of which \$10,000 would be common and \$10,000 preferred. The prospectus said:

“The preferred stock is to pay five per cent. annually. All profits after five per cent. on the preferred stock are to go to the

common stock. The profits on the common stock are to be devoted to the establishment of other taverns.

"The purpose of the company is to establish a public restaurant for the sale of malt and spirituous liquors and the dispensing of food. The objects sought are as follows:

"1. To eliminate private profit from liquor-selling.

"2. To divorce the liquor traffic from politics and to attack blackmail.

"3. To decrease the per capita consumption of liquors.

"4. To disassociate immorality from the drinking habit.

"5. To enlist the sympathy of sane and practical men in the best control of the liquor traffic under the existing laws of the commonwealth and under the drinking habits of the people."

The writer went on to say:

"Realizing that in the present state of public sentiment absolute prohibition is impracticable, the problem is: How shall the evils of liquor-selling be reduced to a minimum?

"Under the present plan philanthropy can take an actual and active hand in the eradication of the evils it deploras.

"No intoxicated person may drink. The managers must be teetotalers. Careful watch will be held over the patrons, and every effort made to prevent intoxication in the Tavern. Women will not be served.

"Pure liquors only will be sold.

"Every effort will be made to escape the criticism that the experiment is for money-making.

"Excellent food shall be provided as an additional preventive of intemperance.

"The whole effort will tend toward the demonstration of the fact that a public drinking-house can be conducted in behalf of temperance rather than of excess."

A lease of the premises at the southeast corner of Mulberry and Bleecker streets was obtained last July. The place contains a store and basement. In front is a large soda-fount, where every known temperance beverage is served. In the rear is a bar-room, much like the ordinary saloon, except that it is less garishly fitted. A table for periodicals and newspapers stands in a corner.

Bishop Henry C. Potter, of the Episcopal Church of New York City, who, of the clergy of America, has been foremost in urging a practical plan to deal with the saloon as it exists, attended the formal opening of the Subway Tavern, as it was named, on August 2 last, and made an address. He spoke of the social condition of the people of New York City which necessitated the gathering of men in saloons for recreation and intercourse. He commented upon the ludicrous efforts that had been made by absolutists to cure the evils of intemperance by trying to stop drinking entirely. He thought that the Subway Tavern was rightly planned. Rev. David Blaustein, a Jewish educator, and Frederick S. Lamb, a well-known worker in the field of civic reform, made addresses, also.

The press of the entire country took sides on the question of Bishop Potter's attendance upon the opening, and the religious press generally condemned his action. In places the criticism grew virulent. Even in the secular press some of the editorials were far from temperate. For a month the controversy raged around the Bishop's head, and was mostly concerned in determining whether or no the Bishop's act was proper. Very little comment was bestowed upon the main issue: Would the Subway Tavern do anything to lessen the evils of intemperance and pull the claws of the liquor traffic? The publicity given the experiment sent thousands to the tavern out of mere curiosity. Business flourished, but not in the direction desired. It was impossible to give the tavern a fair test for a month. The masses of drinking people, for whom the experiment was started, were crowded out by the novelty-seeking New Yorker, who shoved aside the workingman to get a view of "the Bishop's inn."

For several weeks, however, the tavern has been running under normal conditions. The rules as laid down have been carried out by the management as faithfully as possible. No drunken man or woman, and no inebriate has been served. Hundreds of intoxicated persons have been refused. Women without escorts have been excluded, and the best and purest brands of liquor and beer have been served to those willing to drink in moderation. It can fairly be said that the tavern is popular. Men who drink and

who desire to avoid evil associates and bad whiskey have patronized the tavern in goodly numbers. More than a hundred workmen in their overalls are served with a glass of beer and a plate of soup every day at midday and throughout the rest of the day the tavern has seemed to commend itself to the neighborhood. Two near neighbors and competitors in the saloon business, both of whom sold vile stuff, and sold to all comers, have closed their doors. The sheriff took over one and the other retired for lack of patronage. The tavern has held an even way financially and bids fair to stand on its own feet. And this has been done in spite of the fact that the tavern has closed its doors at the legal hours, whereas, most of its competitors do a thriving business after hours during the week and all day on Sunday.

Some difficulty has been encountered in preserving order because of a considerable number of intoxicated persons who enter the tavern and who, when refused drinks, are not always polite in referring to the conduct of the tavern. On a recent occasion, two very muscular young men, "out for a lark," when refused service fought the entire staff of employees viciously and were finally ejected by police officers who were forced to lock them up after clubbing them. The young men pleaded guilty before the police magistrate, and were fined \$10 each. The habitual drinker has been warned of his excess, but a serious difficulty is encountered in sending him away to a worse place. To deal with him is the most delicate problem and we are forced to stop his excess at a point when it is no longer morally possible to serve him. In deciding whether or not to serve a man, our bartenders, who are required to abstain from drinking, use their common sense and refuse at their discretion to serve drinks. Their instructions are stringent and they are summarily dismissed upon violation of our rules.

Whatever may be the conclusion upon the broader phases of the experiment, the visitor need only view other places after stopping in the tavern, to conclude that the Subway Tavern, for those who will drink, is preferable to the vast majority of saloons in New York City.

It is impossible for most saloon-keepers in New York City to live, after paying \$1200 a year to the State, unless they keep open

Sundays and serve all comers; and their expenses also make it impossible for them to sell pure goods. Many thrive upon the earnings, not only of the weaker laborer, but of the prostitute, and hundreds cater to the lowest moral stratum of society. And the writer must be frank enough to say that the chances of success for the Subway Tavern would not have been overbright but for its fortunate location near the Subway stations at Bleecker street, and for the publicity which followed the public exercises of the opening. Yet this but proves how rotten is a traffic which subsists upon vile conditions; which must quickly die if it is honest and decent, and which, half the time, must give up blackmail for violations of the law, in order to produce a livelihood for its managers.

It was natural that there should have been a widespread discussion from the pulpit about the Subway Tavern experiment. The Catholic pulpit has been practically silent on the subject. The Episcopal clergy has been divided in its opinion, and for the most part temperate. The Protestant clergy do not approve of the tavern at all, and have said so loudly. We have been referred to as a "subway to hell," and several original clerical thinkers have announced that the demons of the lower regions danced with glee when the tavern doors were thrown open. Few of these pulpit declaimers have visited the tavern. The farther from New York they have resided, and the less they have known of conditions here, the more unreasonable have been their diatribes.

Whether we are right or wrong in our stand, we have a right to ask these preachers what they are doing to destroy intemperance. I have visited some of their churches since they began their verbal crusade. I see comfort, good taste, good music, fine dresses and hear excellent discourses, but I do not see many men who are in the sorest need of the salvation of the humble Nazarene. Where are they on the Sabbath? What means are being used to reach those living in poverty, who seek forgetfulness in the mock oblivion of drink? Rags and wretchedness do not, somehow, seek out these churches. There is little comfort in a doctrinal sermon for those who struggle betwixt necessity and weakness. The voice of the preacher is not heard by the family of the tenement-dweller that is huddled about a fire picked from the waste wood of the

streets. I am permitted to speak thus boldly because the attacks against the Subway Tavern have been most unbridled from those pulpits which are farthest away from suffering mankind. Little has been said against us by the churches that are face to face with the sick, the weak, the inebriate, the ignorant and the poor.

Yet no one will deny salvation to a man because he is healthful, well dressed and affluent, or because he is already nearer salvation than somebody else; sermons teach such their duty to their unfortunate neighbors, and they give their succor in the form of bank notes rather than by actual contact with those to be helped. But I make plea for myself and my friends to be let alone while we are so close to the lowly that we can see his face and touch his hand.

THE DEEP SEA EXPLORATIONS OF THE PRINCE OF MONACO

L. JOUBIN

IT has been my privilege lately to accompany His Highness, the Prince of Monaco, on one of his voyages of deep sea exploration. His investigations are well known to European savants, and I shall undertake, in this paper, to give an account of some of the "oceanographic" operations conducted daily aboard his vessel under his direction, as well as in the museums and laboratories that he has founded. Prince Albert, who has had, from his earliest years, a veritable passion for the sea, has spent the greater part of his leisure there, making ocean voyages of long duration. His campaigns, uninterrupted for nearly twenty years, have yielded results of high scientific importance, sufficient to commend his name to posterity with the names of Darwin, Agassiz, Sir John Murray, Wyville Thompson, Chun, and Milne Edwards. As these great naturalists perfected methods of investigating hitherto inaccessible depths of the sea, and reading its scientific secrets, so His Highness has invented quite new devices in oceanography, and improved those of his predecessors. On his yacht, to-day, there can be seen in operation the newest and most ingenious as well as the most exact apparatus available for explorers of deep sea levels.

But it was not by a single step that he made himself master of that admirable instrument of investigation, his present yacht "Princesse Alice II." He began more modestly.

In 1873 he became the owner of a yacht, "L'Hirondelle," which he himself equipped and commanded, and whose voyages he has described in his book "La Carrière d'un Navigateur." On this yacht his first cruise was made in 1885. She was a fine schooner of 200 tons, bought in 1873, in England, and manned by fifteen sailors; but as she was not specially designed for scientific researches, it was necessary to make all sorts of changes in the arrangement of the living quarters, to fit out a laboratory, and to set up on deck the appliances for handling the fishing tackle. It

is easy to appreciate the difficulties that had to be overcome in carrying through scientific operations with heavy and cumbersome instruments, which in the absence of steam could be worked only by the men. One can imagine how difficult it was to bring up from depths of two or three thousand metres traps or trawls weighted down with cables and the load of a fruitful haul. Sometimes it took a whole day to hoist one of these instruments on board, and it was no rare sight to see not only the sailors, but the servants, and even the Prince, with the naturalists who were his guests, taking turns at the capstan.

For four consecutive years the "Hirondelle" did duty in the scientific campaigns; the drag-nets which served in the submarine explorations reached a depth of 2870 metres. The Prince explored the great depths of the Gulf of Gascony, of the Azores, and of every part of the Atlantic which lies between these two regions; then he explored the coasts of Portugal and of Spain, and a part of the Mediterranean. Finally, he studied the Sargasso sea and pushed, not without temerity, to Terra Nova. The final voyage almost put an end to his scientific career; for delayed at his oceanographic researches, he was overtaken by the last days of August, the period when the great cyclones begin. With a vessel as light as the "Hirondelle" there was much danger, and she had to go through a terrible storm. One may read in the Prince's book the stirring account of this dramatic struggle; enough, surely, to show the perils to which men of learning, who stop at nothing in their devotion to science, are exposed.

Since these first oceanographic campaigns were crowned with the most interesting results, the Prince decided to equip himself for the work with more powerful instruments. He built a yacht, which he named "Princesse Alice," of 600 tons, furnished with an engine of 350 horse-power, and rigged as a three-masted schooner; she measured 53 metres in length by 8 metres beam. She was an excellent and substantial vessel, large enough for laboratories, steam sounding and dredging appliances, which could lower fishing apparatus to a greater depth than was possible on the "Hirondelle." It was on this vessel that the Prince, from 1891 to 1897, made most important and fruitful cruises. He reached a depth

of 5530 metres in a vast submarine cavity to the south of Madeira, which has been named "La Fosse de Monaco."

In spite of the many improvements in the scientific equipment of the "Princesse Alice" and her great superiority in power over the "Hirondelle," the Prince did not reach the extreme results that he desired; he soon determined to build a much larger ship, equipped with machinery and apparatus that could conquer all the difficulties inherent in the study of the great depths of the ocean, capable of bringing up in huge machines loads of great weight, and finally with sufficient coal capacity to remain long at sea and cover the great distances. With these aims in view, he ordered in England the "Princesse Alice II," a large steel yacht, rigged as a two-masted schooner, 75 metres in length and about 11 metres beam, weighing 1420 tons and equipped with an engine of 1000 horse-power, capable of insuring a speed of 13 knots. This speed may not seem very great, but one ought to remember that the "Princesse Alice II" is not a racing vessel or a pleasure yacht, and that there is no need of sacrificing qualities precious in work to the luxury of high speed.

This magnificent ship is provided with the most modern appliances; she has quarters spacious enough to permit several men of science to accompany the Prince on his expeditions; her excellent steam and electrical plants supply all the needs of a large steamer, and in addition there are the scientific laboratories and the powerful steam winches for dredging and sounding, which operate two reels of more than 24,000 metres of steel cable. Sixty men are employed in services of the most varied character. The "Princesse Alice II" is, in a word, a working ship, strong and flexible, substantial and elegant, easy to handle and of great endurance.

I borrow from Dr. Richard, the director of the Prince's zoological work, information that cannot be read without lively interest. It shows the whole range of the scientific activities on board the "Princesse Alice II."

The double winch, steam-driven, is placed forward for handling the apparatus, trawls and traps; behind it on each side is an enormous reel, whose sides measure 2 metres across, and this is

run by electricity. On the starboard reel, intended for the dredges, is rolled a steel cable 1200 metres long, a part of which attains a diameter of 14 millimetres; this cable offers a resistance of 7000 kilos and permits dredging in the greatest depths. The port reel, intended for handling the traps, carries 1200 metres of steel cable 6 millimetres in diameter. It can be separated into several segments so that when attached to a buoy it will pay out to sea the proper length for sinking a trap.

Behind the reels is the deck laboratory, containing various instruments: sounding lines, reversible thermometers, water bottles, harpoons, etc. A large table, whose central part is on rollers, permits the preparation of a great number of animals and even the dissection of small cetaceans.

The sounding machine, a marvel of exactitude, is on the port side near the middle of the ship; and this is worked by steam.

A double stairway leads to the interior laboratory, and around it are grouped four cabins, appurtenances for the persons who are stationed there, and a photographic dark room. The laboratory is very large, lighted during the day by six large port-holes and a sky-light, and during the night by electric lamps. It is furnished with a table on rollers, which protects objects under experiment from the motions of the vessel. Cupboards containing chemical products, the glassware, the library, the various apparatus are arranged about the laboratory; from the ceiling are suspended a host of appliances, giving this room a wholly original air. Fresh water, sea water, alcohol pipes, chemical furnaces, and electrical stoves complete this equipment.

The Prince commands his vessel, assisted by a captain and a selected staff; and a lieutenant of a French man-of-war. M. Sauerstein, directs the operation of the scientific instruments. All that concerns natural history is entrusted to the care of Dr. Richard, Director of the Oceanographic Museum of Monaco. The Prince is accompanied every year by several men of learning, who take part in the work and the scientific publications; they make studies aboard ship of the animals which cannot be studied successfully on land. It is thus that Professors Regnard, Portier, Richet, and Pouchet, of Paris; Buchanan and Bruce, of Edinburgh; Thaulet, of

Nancy, and Brandt, of Kiel, have successively taken part in the explorations of the Prince. I must not forget to mention that each year there is a painter in the party who makes sketches of the most interesting animals when they come out of the water, and records the scenes and most striking events of the cruise. The scientific documents supply the splendid colored plates that illustrate the publications of the Museum of Monaco.

With this ship the Prince has explored in detail, since 1898, the great depths of the Azores, of the Cape Verde Islands, of the Canaries, of the Mediterranean, the coasts of Portugal, and of Morocco, the Gulf of Gascony, and during two consecutive cruises Spitzbergen, the Barentz Islands, and the glacial part of the Eastern Atlantic. During the campaign of 1899, the "*Princesse Alice II.*" was thrown on a submerged rock not down on the charts and was almost wrecked. The expedition to Spitzbergen has furnished information of the greatest interest concerning the bacteriology, the hydrography, and the fauna and flora of those desolate, but grand and imposing, regions. Charts have been drawn of those dangerous coasts, and the navigators who visit them to-day reap the benefit of the observations made by the Prince during his difficult expeditions.

It will now be of interest to give to the reader a description of one of the animated and absorbing scenes which take place daily on board the "*Princesse Alice II.*"

The yacht, equipped with all her instruments, machines, and various contrivances ready for operation, steers her course over the great mysterious depths of the Atlantic toward the place of her investigations off the Azores. After several days of sailing, the boat reaches the spot determined in advance, for instance above the Fosse de Monaco, where there should be a depth of about 5500 metres.

The problem now is to let down the trawl to a great depth, in search of the animals that live in the abysses.

First a sounding is made in order to learn the exact depth and determine if the right locality has actually been reached. Sounding is not a simple operation; it would seem very easy to send to the bottom a weight at the end of a cable whose length is known in ad-

vance. In reality it is a very complicated task, and in spite of the greatest care the tackle will sometimes remain at the bottom, especially when the sea is rather rough and the swell exposes the vessel to rude and repeated shocks.

A steel wire similar to a piano string is used in sounding, and it is strong enough to support a weight of 250 kilos. It is so fine that its own weight is negligible and the submarine currents do not swerve it. Formerly many mistakes were caused by the use of thick and heavy hemp cables. The bottom was not found with these cables, because the currents swept them to one side or their considerable weight forced the reel to deviate indefinitely. This "sounding wire" is rolled on a winch forming part of an admirable apparatus, as exact as a clock, the "Léger sounder," worked automatically by steam. An automatic indicator is attached to the machine and one can read at any moment on a dial the depth reached by the lead and follow the speed at which the wire is unrolling. The naturalists of the party stand around the machine; it is a curious spectacle to observe the interest that every one takes in the unrolling of the wire when the hand on the dial has passed 5000 metres. It stops suddenly; the machinist cries "Bottom," the lead has touched ground that human eye has never seen.

The first unknown quantity of the problem is solved. The wire carries to the bottom a series of iron rings surrounding a bronze tube, which is forced deep into the ground by the great swiftness of the fall. It is filled with a sort of "mud pie," which is carefully saved when the sound comes back on board. Clay, sand, and mud of various colors are found in it. All these specimens, carefully labeled, are examined under the microscope, and, as M. Thoulet remarks, *nothing is more of a chatter-box than a grain of sand!* It reveals a host of interesting facts about the geology and the mineralogy of the sea bottom, the origin of the ground, the submarine currents, and the changes that they have undergone. The most interesting conclusions can be deduced from these facts with regard to the way in which the continents that we thread to-day grew during geological times in the depths of the waters.

The sounding wire carries with it other instruments; ther-

mometers which, by a very ingenious device, register the temperature of the depth at which they stop and do not thereafter vary, and thus when brought to the surface indicate the temperature of the deep waters where they have been. If these thermometers are attached every 500 metres along the sounding wire, they will show the temperatures of the water at these various levels of the sea. It is thus that in the neighborhood of the Canaries the surface water shows 28 degrees, while the water at the bottom is about 1 degree for 5500 metres. From this study very interesting considerations can be deduced concerning the submarine currents, warm or cold, and it is possible to say whence they come and whither they go.

The study of sea water can be carried further by taking samples of water from different depths. Dr. Richard has invented a bronze bottle which opens only when it comes to the depth that is to be studied and closes as soon as it is filled. The study of these samples reveals the density, the saltiness and the salts and gases dissolved in sea water at these various levels.

A most curious contrivance, invented by Dr. Portier, makes it possible to get water at any depth under special conditions of purity and without any foreign matter, and thus the microbes of the great depths can be studied. These microbes, brought up in tubes by the sounding wire, are "sown" over culture broths made in the deck laboratory from animal decoctions which are not often found in such soup!

It is plain from this rapid survey that the lead is an instrument which carries with it a whole series of appliances, each more ingenious than the last, to penetrate into the mysterious life of oceans. Obviously a sounding operation is somewhat complicated. It occasionally lasts several hours, for if the descent is rapid, the ascent is much slower. And during all the time the ship must be so handled that she does not drift, but, against winds and currents, stays always in the same place and holds the sounding thread vertical.

As soon as the depth is known exactly, the men begin lowering to the bottom a piece of fishing apparatus, a trawl for example,

for the purpose of bringing up specimens of the animals and minerals that are on the floor of the sea. It is for this purpose that the great reels are used, placed forward on the "Princesse Alice II." and each carrying 12,000 metres of steel cable.

The trawl is a great pocket of solid network, mounted on a strong iron frame; it is about 12 metres long by 3 wide at the mouth. It is attached to the end of the cable and is ballasted with great iron weights, which force it to drag along the bottom. The cable passes over a pulley attached to a dynamometer, an instrument which must be watched carefully during the entire operation, for it shows whether the trawl is filling, whether it is caught on the bottom, or whether it no longer touches the ground. The trawl once put into the water, not without difficulty, because of its weight and its form, is let down slowly. If the bottom is more than 5,000 metres distant, three or four hours are required to send the trawl to its destination. The ship is then allowed to proceed slowly, so that the netting drags along the bottom and scrapes in everything on its way. When the dynamometer indicates that the weight has steadily increased and that the trawl has done its duty, then with the help of the steam winch, the trawl is reeled in. This process is very complicated, very delicate, not free from danger, and it lasts several hours. The fact is that not infrequently a trawl put in the sea early in the morning does not reappear on board till nine or ten in the evening. Sometimes, too often, alas! the trawl returns empty, or even does not return at all, hooked to the bottom on some rock from which the cleverest maneuvering is not able to free it. But when it has operated successfully, what a pleasure to see it return on board with a bulging belly, full of brilliantly colored animals, sparkling with points of light! What an unforgettable sight to a naturalist, these creatures still alive which were stirring some hours earlier in those mysterious depths inaccessible to man! What problems they raise! What solutions they bring! What new horizons they unveil on life, its ways and its transformations, its adaptation to surroundings so different from those we see!

As soon as the trawl is on board, every one rushes forward and tries to disentangle the animals caught in the meshes of the

netting, in the tow of the swabs, in the mud from the bottom. Someone has found a superb sponge; he seizes it, but it takes revenge by plunging into his fingers thousands of glass needles; another waves a splendid branch of coral, still glistening with a myriad fires; another seizes a splendid star-fish of a dazzling red. The cries of admiration grow,—the men of science, the assistants, the sailors, everyone takes part. Charming scenes follow, and the photographers are not idle. The painter strives to make as rapidly as possible water-colors of the most interesting animals while they are still alive, the notes of the naturalist accumulate on the margins of his sketches. Gradually order returns. Everyone has taken up what concerns himself, and there remains nothing more to do but label and prepare all of this material, and make a final disposition for its shipment to the naturalists who collaborate in the publications of the Prince. To them will be entrusted the exhaustive study and detailed description of all these novelties.

Everyone knows a trap, a kind of wicker netting, or metallic cloth cage, which is placed in rivers or ponds and in shoal seawater along the coasts to catch fish, lobsters, or crabs. The Prince of Monaco was the first person to think of using a similar contrivance in the great depths. He built large traps two metres in height, in the form of pyramids, made of a solid network stretched over a wooden frame. The trap is baited inside with fragments of meat, fish, bits of plates or tin, etc., then it is slowly lowered to the bottom of the sea, and the end of the cable that holds it is attached to a luminous buoy. This trap is often let down to a depth of two, three and even five thousand metres and left down there for two or three days. It is not unusual to make a truly miraculous haul. One day, at a depth of about 1300 metres, 1198 specimens were taken of a fish resembling a flat eel. Another day 64 large crabs were brought up from a depth of 1400 metres, and of these several had a reach of a metre; some of them were crawling on the surface of the trap when it began to rise, and, seized no doubt with the fear of falling, they grasped the net so tightly with their claws that they reached the surface without accident and were captured. In conformity with the plans of Dr.

Regnard, the Prince has built a trap lighted inside by an electric lamp, for it is a well-known fact that light attracts marine animals.

Fishermen lower several hundred metres of weighted line with which they capture various kinds of fish. The Prince of Monaco has been able to lower lines provided with several hundred hooks to a depth of more than five thousand metres; but of course this colossal line is not so simple or so easy to handle as the fishermen's. It scarcely ever brings fish from a distance of more than 2,500 metres; beyond this depth they seem to be excessively rare.

All the inhabitants of the sea do not dwell solely at the surface or on the bottom; there is another category which live a floating life in the body of the water, and are borne about by the marine currents. These animals which, as Lamartine says,

Toujours poussés vers de nouveaux rivages
Dans la nuit éternelle emportés sans retour,

never know rest, are called "Pelagic animals." Some live near the surface; others, on the contrary, live at great depths. Since the rays of the sun do not traverse more than 300 metres of water, those that live at a lower depth never see light; others are sensitive to light and heat, and can mount to the surface or submerge themselves more or less, according to their need. Some of these pelagic animals that never touch bottom are very large, as the various fish, turtles, and cetaceans; others are of very small bulk. These latter belong to the inferior species, and their number is beyond computation.

The entire group of these little microscopical creatures has received the name of "plankton." In order to catch them it is necessary to use special nets of very fine and very strong silk gauze similar to butterfly nets. They are thus caught in crowds and are mixed with numberless little algæ on which they feed.

It is easy to capture this plankton (with hand-nets) when the sea is calm, but it is much more difficult to manage these silk nets at great depths. A great number of appliances have been invented, each more ingenious than the last, but all of them have been difficult to handle. The most simple contrivance, invented by Dr. Richard, is operated daily on board the "Princesse Alice

II." It is a long cone or horn of solid silk gauze, the opening mounted on a circle of iron wire. This cone is thrown on the water at the end of a cord, and is allowed to drag on the surface behind the vessel. A speed of ten or twelve knots does not tear it, and when it is pulled on board, it is found to be full of a host of little creatures that the water has left behind in filtering through the silk.

But this system gives inadequate results, because the net is too small and acts only on the surface. Dr. Richard has invented another net which can be let down more than 5000 metres. It is a huge funnel of solid cloth, with 9 square metres of opening, and a bottom consisting of a metallic reservoir. It is let down slowly to the desired depth, then brought up as rapidly as possible. All the floating animals in the path of the funnel are captured, for they cannot swim fast enough to get out of the funnel, and they are found by the thousands at the bottom of the net. New animals have been caught by this process, animals that live in the dark spaces of the sea without ever resting on the bottom or rising to the surface.

The study of the plankton may seem to lack practical interest and to be of no importance except to professional naturalists, but such is not the case. It serves as food for numerous pelagic fish, such as the sardine and the herring. If the plankton is abundant, these fish pursue it in great numbers. It is therefore important to understand the nature and abundance of the plankton, the causes that make it approach or shun the coast, and the warm or cold currents that transport it. These questions, of great interest from the point of view of industrial fishery, have been studied methodically by the Prince of Monaco. These little passive beings are borne along by marine currents, the knowledge of which is of primary importance to navigation. The first oceanographic studies of the Prince of Monaco bore on these currents, and the Gulf Stream in particular, its general direction, and its spread along the coast of Europe.

For a long time there had been found at several points on the east coast floating objects that had come over from the west coast. The Prince wished to know what routes they had followed. With

this object in view, he had special floaters built; they were numbered and each carried a document written in nine languages, which instructed the person finding the floater where to send the document, after making a note of the date and place where it had been found. Each floater consisted of a copper sphere formed of two halves bolted together. More than 1500 of these instruments were dropped between the Azores and Terra Nova. A large number, several hundred indeed, after more or less time had elapsed, were found at various points along the coasts. Since they were numbered and the exact point where they were placed was known, the Prince was able to draw up charts of their routes and to learn the speed of their voyages.

This year another kind of study has been undertaken by the Prince. The problem was to learn the nature and direction of the atmospheric currents above the ocean and their relations to the marine currents.

For this purpose special *kites*, like those used in American observatories, have been sent out from the yacht. It has been possible to make them ascend more than 5200 metres, carrying apparatus to register the temperature, the pressure, and the humidity at every level of the atmosphere. While one steel wire was plunging 5500 metres into the sea, at the same point of our earth another wire was rising to the same height in the air, and thus we were learning through a space of 11,000 metres of the phenomena existing simultaneously in the water and in the air. In this manner it has been possible to make most interesting observations of the trade winds that prevail between the Canaries and the European coast.

In these same parts the great depths of the sea have revealed curious secrets: here are immense plains, for hundreds of kilometres almost level, and covered with a soft carpet of white mud, fine and compact. Elsewhere sandy and rocky banks rise from the plains almost to the surface, summits of submarine volcanoes, such as the Princesse Alice bank; and there are abysses of more than 6,000 metres (Fosse de Monaco). The oceanographic and hydrographic labors of the Prince have made it possible to draw accurately a map of the submarine floor of the North Atlantic.

The Prince has taken under his direction the publication of an immense map which indicates the depths of all the seas of the world. This map is of the greatest use to navigators and to companies which lay submarine cables. It has required countless personal investigations in the archives of various admiralities to get hold of all the soundings made for a century by the navies of the various countries.

These diverse labors, sometimes on the surface of the sea and sometimes in its different depths, afford the opportunity of encountering cetaceans of various species. It is well known that these great animals seldom go near the coast. They are generally captured by whalers, who have too many commercial preoccupations to make zoological observations. Accordingly the anatomy of these great mammals is very little known. Their way of life and even their different kinds are not accurately determined. The Prince has endeavored to collect the greatest possible number of documents bearing on these animals which are so large and yet so little known. For this reason naturalists on board never lose a chance to photograph, to capture if possible, and at all events to observe the evolutions of the cetaceans, creatures of a majestic size, but very ungraceful in their movements. A considerable number of animals have been studied and captured whose skeletons and skins have been prepared, and now figure in the Museum at Monaco.

This oceanographic museum is the only one of its kind now in existence; it is devoted to the study and the exhibition of all that touches on the newly invented science of the ocean. The original idea of the Prince in undertaking the construction of this magnificent establishment was to bring together the collections proceeding from the campaigns of the "Hirondelle" and the "Princesse Alice"; but the idea has broadened, and the new museum shelters not only the collections and the special apparatus of the Prince, but everything that bears in a general fashion on oceanography. Thus conceived, the museum established at Monaco is a unique institution, forming one palace more among the admirable gardens in the fairylike setting of the Azure Coast. The building is 100 metres long; its ground-floor opens level with

the square of Monaco; but the basements are literally suspended above the sea, for the entire building is seemingly stuck against the cliff at a height of 53 metres. The foundations, indeed, required work of extraordinary ingenuity. On entering the main door a visitor finds himself in vast galleries arranged for the collections, but he cannot suspect all that is beneath his feet. In fact, an immense aquarium, zoological, chemical and physical laboratories, studios, storerooms, engines are placed between the museum properly so called and the structures that support the edifice on the side of the sea. The total effect of this highly specialized building can only be seen from the sea. From the land the upper stories alone are visible.

Besides the zoological collections, the museum contains specimens of every sort brought from the bottom of the sea, plants, minerals, sand, mud, etc. There are the models of the various instruments used in the intricate oceanographic studies, nets, boats, machinery, charts, historical mementoes. All the objects are not on exhibition; there is, in fact, one collection for exhibition and one collection for study. The latter is specially designed for men of learning who wish to extend their researches. Duplicates are finally disposed of by exchange with foreign museums.

It would require an entire volume to give even a cursory description of the principal scientific treasures of the Museum of Monaco. My account here must be limited to the few points of greatest interest, and only a few objects can be mentioned among the most curious and the most suggestive for the natural history of the seas.

The animals form the most important part of these treasures. I shall say nothing of the microscopic creatures, the infusoria family, whose shells become after their death an important constituent of the mud that covers the sea-floor. There are highly important collections of them which can be studied under a strong magnifying glass.

The sponges form an extraordinarily abundant fauna. There is a great variety of them at the bottom of the sea, and these have been studied by Professor Topsent. Some are of much interest to the naturalist, but attract little attention from the uninitiated.

Others, on the contrary, have marvelous forms, resembling delicate lacework of spun glass, with crystals glowing with a thousand fires. All these beautiful objects have been described and illustrated in two great volumes adorned with superb plates.

I do not dwell on the medusæ, the corals, and the numberless animals related to the same family, which are represented by specimens of every size and every color, captured on the surface and at a depth of 2 to 6000 metres. In the waters of the Azores corals have been gathered from off the submarine telegraphic cables.

The starfish form one of the most beautiful groups of this collection. Some are bright red, others pink, green, or yellow. Some of them were taken at a depth of more than 6000 metres with their first cousins, the sea-urchins, which have furnished zoological wonders. These spherical animals have a hard, calcareous shell, on which are a crowd of sharp prickles. In the great depths are found sea-urchins without the calcareous plates, altogether soft and flattened.

The crustaceans are represented by thousands of varieties, from the smallest up to giant crabs of more than a metre broad. Others have antennæ and formidable claws about 4 feet long. Many have bodies of so intense and beautiful a red that the most skilful painters are unable to copy the extraordinary effects presented by these fantastic creatures. Some of them are extremely rare animals of which only one or two examples have ever been found. Others, on the contrary, are so common in the great depths that (at one time, in a single net) as many as 2000 specimens have been caught; they are a beautifully colored prawn.

In addition there are innumerable worms, molluscs, scallops, and other animals. I shall pause only an instant on one very curious family, the cephalopoda; the Prince of Monaco has entrusted to me for more than ten years the study of this species. It is among them that I have found some of the sea monsters that I have spoken of in a previous article in this review; it is also among them that I have found animals that can be ranked among the most curious and strange of the animal kingdom. These creatures are known along the coasts by several common

species, the octopus, cuttle-fish, squid, etc. They are generally very ugly and horrify people that run across them, but out at sea and on the bottom there are others that are very beautiful, with glittering colors. Some are very pretty, others hideous; some are very small, others enormous, in fact specimens 50 feet long are known; some are very agile, swimming with astonishing rapidity; others, on the contrary, are very heavy and have the appearance of floating barrels; some of them, because of their suckers and sharp hooks, are wonderful hunters; and others have no means of defense except the black fluid that they throw out to darken the water and conceal themselves as in a cloud. All can, at will, change color and some possess wonderful organs which produce light, making it possible for them to vary the tint. Finally these animals have a highly perfected brain and marvelous eyes, as perfect as those of man. The Prince of Monaco has captured a great number of these cephalopoda, from which I have made the study contained in two volumes of his publications.

The "Hirondelle" and the "Princesse Alice II." have made very fruitful hauls of fish. The museum at Monaco contains whole series of fish that are of great rarity and interest to science. Those taken at the greatest depth come from 5289 metres below the surface.

Several of these fish can produce light like the cephalopoda. Another is able to take into his stomach prey larger than his body. His stomach swells and forms an enormous pocket under the body, giving the appearance of two adjoining bodies; and it is possible to see through the walls of this singular digestive organ, which is transparent, all that is going on within.

The whole object of this work of the Prince is not merely to gather specimens and collect observations by modern and improved means: the most must be made of these precious materials. One man's life would not be adequate to this task. But the Prince has associated with himself a certain number of collaborators to whom are entrusted, according to their respective specialties, the specimens secured on the cruise. They first study the objects rapidly and draw up brief notes, which are put into print immediately, and several days afterwards appear in the "Bulletin du Muséum de

Monaco." Then their extended studies, accompanied by plates, figures, maps, etc., form the volumes of an admirable publication. This magnificent work can pass as a model of its kind of scientific publication. It is an indestructible monument reared to oceanography. The Prince literally gives this series, not only to men of learning, but to libraries, museums, and universities which it interests.

Such is, reviewed in its larger aspects, the scientific work of the Prince of Monaco. I have not been able to enter into the thousand and one details that it includes, but what I have said is enough, I hope, to show its interest and its magnitude, to reveal its importance and its originality, and to set up a disinterested memorial of this sovereign, who is as liberal as he is learned.

THE TIMES AND THE MANNERS.

THE unprecedented popular majority given to Mr. Roosevelt in the Presidential election has, of course, been variously "explained." The Democratic press, unwilling either to admit that Mr. Parker was not a strong candidate, or to believe that the country is unalterably committed to the policies set forth in the Republican platform, has insisted that the result was merely an astonishing tribute to personality—to the qualities of an exceptional individual. The Republican press, unwilling to see the "issues" ignored, has proclaimed the vindication of both an administration and an established party policy. A truer view probably is that the Republican majority was not only an expression of much liking for Mr. Roosevelt the man, and of a general approval of his administration, but also a phenomenal modern manifestation of myth-power over the human mind. The myth-creating habit did not perish from the northern world to which we belong when the *götterdämmerung* fell upon the ashes of Valhalla. The image of a great man that lives in the hearts of his adorers is not the photographic portrait of an acquaintance, snapped at an opportune moment in familiar intercourse; it is a pure myth, created by imagination from hearsay and suggestion, and colored by the glow of a contagious enthusiasm. Long after his death conscientious historiographers try to construct for us, from diaries and official papers, a picture of the real man—just now they are revealing to us "the true George Washington," "the man Lincoln as he was," and so on—but they never displace the mythical personage who has preëmpted the hero-worshipping consciousness. Only a few individuals among the millions that voted for Mr. Roosevelt on November 8 have seen him in the flesh. Each voted for a creation of his own myth-making imagination, and probably no two voters created their Roosevelts in precisely the same image. On the whole, however, millions of such images were nearly alike. Blended, they would have been a symbol—a personification—of qualities that the American people adore: energy, positiveness, a direct, straightforward way of attacking the work or the problem at hand. Mr. Roosevelt the liv-

ing man is a vigorous, honest, friendly gentleman, an able and business-like executive, who will serve his country faithfully and with distinction. The Roosevelt that his countrymen imagined themselves voting for, the Roosevelt that will live in tradition after the Roosevelt of flesh and blood has been gathered to his fathers, is and will be, one of the most interesting myths yet created by man.

The chief attribute of the myth-made great man is the miraculous power imputed to him to create good and evil—victory or defeat in a military age; prosperity or adversity in a business age. The average intellect is still thoroughly anthropomorphic in its constructive activity, but it does not stop with the creation of a Creator in the image of man; that task achieved, it proceeds then in full assurance to create great men in the image of the Creator. The political philosophers may be unaware, but the politicians know, that in this country enough voters to determine the fate of any Presidential candidate believe as firmly as they believe in a change of the moon that the President of the United States is personally responsible for good and bad times. There is a certain farming section in Pennsylvania where, since the days of Andrew Jackson, every male citizen had voted the Democratic ticket until 1896. You could now no more convince that rural district that Grover Cleveland did not with malice aforethought create hard times in 1893 than you could make a Dunkard exhibit his wife and daughters at Ostend or Monte Carlo. That rural district voted on November 8 for President Theodore Roosevelt, and so did ten thousand other like-minded districts, from Cape Ann to the Golden Gate.

The most tremendous fact in human affairs at the present hour is not the overwhelming popular majority for President Roosevelt in the United States, nor yet the military situation in the Far East. It is the internal situation in Russia. When the war with Japan began, all lovers of liberty fervently prayed that whatever else might come out of the awful struggle, there might at least be a popular uprising in European Russia itself, which would sweep away the institutions of despotism and of spiritual darkness

as utterly as the revolution of 1789 swept them away in France. Those observers who knew the condition of things in Russia predicted this result as well-nigh inevitable. Sooner than the most sanguine anticipated, the long-slumbering popular dissatisfaction of the Russian people has found expression in boldly open demands. The assassination of De Plehve and the appointment of a new Minister of the Interior, strong, broad-minded and sane, who had the penetration to see that only a liberal program, generous in its provisions and boldly proclaimed, could save Russia from inevitable destruction, was the signal for the throwing off of the disguises and restraints of a century. With startling suddenness the people of Russia have found their voices. The newspapers, long compelled to conceal all real opinions, have all at once spoken with a freedom hardly more restrained than in western Europe or in America. The situation is ominously like that which existed in France in the fateful days before '89. Like the encyclopædists and pre-revolutionary thinkers, Diderot, Voltaire and Rousseau, great minds in Russia, whose very names are almost unknown to the western world, students of the social sciences, like Mikhailovski and Novicow, have made the educated classes think about economic and political questions. Novelists like Turgenieff, Tchernychewsky, Dostoyevski and Tolstoi, have awakened the imaginations and passions of the people. Like the great Minister Turgot, the new Minister of the Interior Viatopolsk-Mirsky, by proclaiming reform, tries to save the form of the *ancien régime* while surrendering its substance, and, like the demand of the parliaments for the assembling of the states-general, the zemstvos demand the assembling of a Russian parliament and full amnesty for political prisoners and exiles. Will the outcome of it all be a revolution marked by violence, by a complete sweeping away of ancient institutions and by a reign of terror in which the most radical forces enjoy complete ascendancy, as they did in Paris? Or will the Russian people prove themselves able, like the English people, to create institutions of liberty without breaking violently with the social organization of the past? More ominous than any other parallel, perhaps, is the fact that the revolutionary movement comes while the country is involved in foreign war. Be-

cause France was compelled to fight for its national existence while transforming its internal system, Napoleon came to the front and made himself supreme. The republic, established at such frightful cost, surrendered itself without a struggle to the rule of a dictator. Must history again repeat itself in that respect, and will a military empire of Russia dictate terms to all Europe as did the first empire of France? These are questions that no wide-visioned student of human history can fail to ask, but which no prudent prophet will as yet venture to answer. This much of cheerful optimism, at least, we may cherish. Whatever the immediate future may have in store, we may remember that not even the rule of Napoleon could restore the old order of things in France. The Code Napoleon embodied in a system of law the essential principles of that creed of human rights—of liberty, equality and fraternity, which, when all is said, is the creed of democracy; and after half a century of fateful trial, the forces of republicanism again prevailed and created in France a substantial and impartial republican government, which is to-day, with all its defects acknowledged, one of the fairest fruits of European civilization.

The notion that since the progress of a people depends upon the inventions that it accepts from foreign sources as well as upon those that it originates, prediction of its development is impossible, finds nowhere more facts to support it than in the history and present activity of Japan. Not even the extreme rationalism shown in its adoption of European dress, manufactures, and ideas of government, and the change wrought by them upon the Japanese people since 1884, quite prepared us for the uncompromising scientific character of the methods that they are now following in the conduct of the war, and in all their public affairs.

Certainly it could not have been foretold that the crossing of two of the most opposite cultures, without any change in the ethnic composition of the group responding to them, would result in a more complete application of principles than had yet been carried out by the nations in which those cultures were developed. The case, therefore, seems without precedent. Accustomed to look for social progress to those nations that, however much they have re-

ceived from others, have developed something new and distinguishing in the process of adaptation to their own environment, we think of Japan as not quite belonging to the natural order of things. In truth she has seemed to us not unlike the artificially endowed bird of borrowed plumage.

Absurd as she may appear from the standpoint of natural selection, even this fabled imitator assumes new dignity when the psychic importance of her act is understood. Has it not been by an adaptation of appropriated means that many other aggregations of mind and matter also have attained unlooked for ends? If we conceive of inventions in the narrow sense of the word as material contributions to the means of doing things, much that has been written about nations being at the mercy of the most ingenious in devising methods of destruction will have to be revised. When, however, we conceive an invention as an innovating thought or ideal put into practice, a new light is thrown upon things. While it is true that Japan has not contributed any notable improvement to modern implements of war or of peace, it is far from the fact to assume that she is without inventive skill. The truth is that the number of innovating ideas adopted by the Japanese in the last half century has never been approximated by any other people in anything like the same space of time.

While Japan has much to teach us about imitation as a transforming agent, there is something left to be learned also from our own failure to apply scientific methods to the study of her social phenomena. A recent impressionist picture of Japan by one of our most celebrated word-painters of the biological school—Dr. David Starr Jordan—is a noteworthy example of the limitations of knowledge to be had from the mere recognition of conspicuous but isolated historical facts. Shintoism, the religion of nearly thirty millions of the Japanese people, is portrayed by Dr. Jordan as conserving qualities of patriotism and citizenship worthy the emulation of the most advanced civilizations. Because of its doctrine of the duty of handing down to posterity the undevastated forests, the unpolluted streams, and the unexhausted soil of the Japan of his ancestors, the faith of the Shintoist is commended as having much in it that we can ill afford to over-

look. Thus far we agree with our biological sociologist. But too much has been left out of the picture, and there is an implication that the missing details are unessential. We are left under the impression that it is a certain primitive homogeneity of mind and culture that is being commended; and we are obliged to dissent. A Japan peopled by a race of beings so undifferentiated by conflicting ideals, group interests, and other imperfectly co-ordinated elements, we find peculiarly difficult of interpretation.

It is a pleasant enough scene, this representation of a patriarchal society being led to the promised land of civilization without any of the falterings by the way that have retarded the progress of other patriarchates, but is it not more than unusual? The impression of an aggregation of elements progressing in a state of almost perfect homogeneity from a relatively low to a relatively high form of development is, perhaps, a little more grotesque than even the biological sociologist would have us imagine him as attempting to produce.

That the "Arise, slay and eat" policies of powerful political parties, of great corporations, and of individual monopolists, have not as yet, like the Baals of the Israelites, diverted large numbers of the population of Japan from a religion of pure patriotism, is partly true. Moreover, of the millions outside of Shintoism in that land of unappropriated Niagaras and unimpoverished soil, it might be said that nearly two hundred thousand belong to the faith of those who are taught in whatsoever station in life they find themselves, therewith to be content. Yet it is not possible to read the history of Japan without observing much that is inimical to so simple a theory.

Unfortunately for the student whose thesis is that the kingdom of heaven may be attained only by the docility of the unfit to the leadership of the elect, there are disturbing reflections. It would be so much less difficult if in that land of the rising sun progress might be seen to have taken place along such direct and easily discernible lines. Instead, we find gods almost as diverse and quite as exacting as those of our own devising, while religious sects, economic classes and political divisions of the population appear to have been engaged in conflicts so similar to those dif-

ferentiating our own heterogeneous mass, that there remains scarcely room for variation.

Without wishing to obtrude unnecessary details into this pastoral picture, we are fearful that, as with all unequal distributions of mind and matter, equilibration has been attended by some of those unpleasant experiences with which all other historical peoples have been familiar. We suspect that a detailed record of Japan's internal history would reveal to us the illuminating fact that more than one Wat Tyler, Nathaniel Bacon, and Jacob Leisler of popular rebellion had, at various times, disturbed the peace of the dwellers in many a fertile valley of the beautiful land of Nippon.

An international Congress of free thinkers at Rome, an uprising of Republicans in Russia, and an open conspiracy of Spaniards in Paris, whose hope is the establishment of a Spanish democracy, is a combination of events not without an element of surprise to the most expectant. Its final significance must be left at present to the philosopher. In the meanwhile, to concern ourselves with obtainable knowledge, it is interesting to observe certain phenomena that the philosopher might ask us to pass all too hurriedly over. Of the Congress at Rome there is already printed material for an empirical study that invites arrangement in some kind of scientific order. In the descriptive matter about the popular reception of the speakers, for example, what an inviting array of facts we have in witness of conduct still differentiating the Italian from less emotional beings! At least twelve thousand of the people of Rome, with demonstrations of fervor unsurpassed by former processions, accompanied the delegates to the Liberal Congress from the Collegio Romano to the Porto Pia. On the closing day, a still larger crowd of exuberant sympathizers marched with them, to the tune of music and the waving of flags, to the Campo di Fiori and the monument of Italy's most inglorious free thinker. And these demonstrations at the tomb of Bruno, and upon the way to the Garibaldi Gate, were but the more conspicuous examples of behavior that should enable us to determine the type of mind prevailing in Italy to-day. Again, when Professor Haeckel proposed to send a telegram to Minister

Combes, tendering him the sympathy of the Congress in his attempt to free France from religious despotism, the entire audience leaped to its feet, "moving toward the platform like an Alpine avalanche, shouting in French, Spanish, German, Italian and English," and outdoing itself generally in emotional excitement. Could there be a greater contrast than between this kind of public action and the apathy of the crowds at St. Louis towards the convocation of the great leaders of modern thought gathered there during the same week? Imagine twelve thousand American citizens accompanying any group of speakers to the gates of anything! This is the difficulty we have in settling the questions that arise about the progress to be expected from the Italian movement. The contrast is too great. While waiting for information to make our main conclusions *a posteriori*, we are liable to reason at random. It is difficult for an American to think of enlightenment in terms not explainable by response to intellectual stimuli. On the other hand, there is danger of forgetting that the twelve thousand whose demonstrations compel us to regard them as still too emotional for intelligent social action, may in fact afford us proof of an intellectual diversity heretofore unobserved. Be that as it may, this sharp separation between the dogmatic and the authority-questioning elements of the population of Rome indicates a degree of heterogeneity not to be left out of our enumeration of group distinctions. The edict of the Vatican that the Congress was an "offense against God and against us" is, of course, testimony of scientific importance on this point. It is not superfluous. Without it we should have lacked one final and convincing proof of the eternal fitness of things.

That there was need of the National Child Labor Committee is proven by the authoritative statement put forth by its secretary, Professor Samuel McCune Lindsay, that there are more than two million children between ten and sixteen years of age working for wages in the United States. For a large proportion of these children the hours of employment are long, and the conditions are destructive of health and life. They work not only in the fields of the South and West, but also in the mines, on the rail-

roads, in mills and machine shops, in department stores, and, worst of all, in the sweatshops of the clothing trades. For most of them "schooling" has ceased at ten years of age, and they become in adult life an ignorant element in our citizenship, dwarfed in body and mind, brutalized and embittered, a ready material for the fanatical disturber of the peace to prey upon through religious emotionalism, trade union bigotry, and anarchistic hatred.

It is true, of course, that boys born of good stock that happens to be struggling with poverty have in every generation risen from a youth of toil to positions of public usefulness and distinction, to say nothing of the thousands that have struggled up from adverse conditions to reputable private success. It is also true that it is better for children to be usefully and remuneratively employed than to be let loose to wander the streets in irresponsible idleness. It is even true that laws, which take children from money-earning employments and compel them to attend school, work cruel hardships and even force self-respecting families into pauperism, in hundreds of individual cases. Over and over again the district Committees of the New York Charity organization society have had to deal as best they could with the case of a widow or deserted wife, too ill to work herself, and whose boy, below the age of legal emancipation from school attendance, has been taken by the truant authorities from a good place in store or factory and sent back to school. The woman, until then self-respecting, has been compelled to drink the bitter cup of appeal for help, and the son has received his first lesson in the easily learned act of dependence upon charity. Such instances present a terrible objection to hard and fast governmental prohibition of child labor.

Yet, when all objections have been weighed, there is no escape from the conclusion of common sense and humanity that the wholesale industrial employment of millions of children of school age must be stopped if we are not to witness a shocking lowering of the standards of American life. If the Child Labor Committee, which includes in its membership men like Grover Cleveland, Cardinal Gibbons, Bishop Greer, Hoke Smith, Clark Howell, William H. Baldwin, Jr., and Alexander J. Cassatt, can suggest

a plan of restriction and regulation that shall prevent all unnecessary curtailment of school attendance, and yet allow of exceptional dealing with cases of exceptional hardship, it will indeed "deserve well of mankind."

In a recent essay on "Marriage in Fiction," an American writer has ably and cleverly presented the most subtly plausible of all the arguments on the negative side of the divorce discussion. For the heartless mismating of his heroes and heroines, the essayist makes the domestic experience of the author of *Ivanhoe* responsible. "He had lived his own life bravely and happily without his heart's desire; he believed that it was the fate of most men to do the same," says a biographer of Sir Walter Scott. This ethical doctrine, held also by most of the later writers of English fiction, is set forth by Miss Repplier as representing the mind of the English reader as well.

It is doubtless true that such an ideal has influenced the lives of countless Englishmen. It is one of the most appealing and one of the most impossible of human standards, this ideal of making the best of things. Without attempting to touch upon its impracticability, it is only fair to admit that it is unquestionably an ideal that has influenced a population much larger than that of England. If to uphold and further disseminate it had been the sole motive of the estimable bishops and laymen of the Protestant Episcopal Church lately in conference at Boston, we might bear with more patience the theocratic tone of their deliberations. That it is an ideal held also by Presbyterians, Methodists and Baptists, and by individual Unitarians, we do not doubt. It is evident, moreover, that this *laissez faire* policy of marriage is being adopted by secular bodies far from unanimity on questions of ecclesiastical authority. Legislative enactments restricting divorce in more than half of the States of the American union in the last few years, bear indisputable witness to a return to English standards. A complete understanding of the causes of the reaction will perhaps never be had. Many shadings of opposing views upon divorce are held in America by the fair-minded. There is in particular a large and disinterested element holding the yet unshaken opinion

that the harshness of the restrictive measures supposed to be necessary in most cases might wisely be mitigated by special dispensation of the courts in difficult instances. With this open-minded public we hope presently to have further conference. Meanwhile, it would improve our opinion of his fitness to discuss the subject at all if the churchman would turn to his Milton and read again the experience of one who had learned many things in the school of life, and who takes us into his confidence. We are not ready to believe that all Episcopalians wish to return uncompromisingly to the distinctly English idea of the excellence of masculine brute force in the matrimonial relation.

There are countless women who hold the marriage bond to be indissoluble; but there are also many others that have been emancipated from that notion by the economic opportunities opened to them in the last twenty years. It is this fact especially that makes the present reactionary movement difficult to understand. There has been, of course, a reactionary movement also against the extension of economic opportunity to women, but it can hardly have been felt enough as yet to influence the situation greatly. Neither reaction can seriously affect the status of women in the long run. It would greatly help matters, however, if women themselves would make some things more clear. It is time we had from our college women the same trustworthy information upon the subject of divorce that they have given us upon the marriages and motherhood of girls that have enjoyed the higher education. We should like to know, for example, the proportion of divorced college women to women in the same social class that were married earlier in life, and whose interests are less wide. There are ways in which the woman of scientific training could get to the bottom of the most delicate of the questions involved.

It is two hundred years since the ideal of a simple life occupied the American people to anything like the extent shown by the present outburst in its favor. It is not, however, the mere fact that so long a period has elapsed since the first epoch of introspection to which we would call attention. We are interested rather in a comparison of two methods of appeal to the social

consciousness. Incidentally, the contrast between two modes of spreading the same gospel may reflect a light not hitherto thrown upon intervening conditions.

Not long after the death of one of the most distinguished men of the province of New York, in 1767, some eighty families of the group that we would now designate as "the smart set," agreed to put an end to extravagant practices that had come to make the burial of the dead a social function instead of a solemn and simple ceremony. Following the example of their friends in this neighboring colony, the leaders of society in one of the wealthiest of the New Jersey towns also met for concerted action in curtailing the expenses and altering the prevailing customs of funeral ceremonies. Each of these contemnners of ostentation pledged herself in particular to "abandon the custom of giving scarfs, gloves, rings, and other funeral gifts, and to the wearing of a crepe band about the arm in place of heavy mourning."

At this day it is difficult to realize that such practices prevailed among American men and women sprung from generations that had been subject to refining influences, but there is abundant evidence that they were observed in all their crudity in the highest social circles. There is no need to discuss the customs themselves. Incredulity would but increase as we reviewed the list of absurdities. It is enough to be reminded of the astonishing kinds of periwigs, official robes, and other articles of proud apparel in Revolutionary days adorning the persons of men, women and children from Boston to Savannah, in order to picture this period of extremely false values in the life of the American people.

Of the widespread disapproval of such extravagant ways, that sprang up at the time to which we refer, we have further and recurring proof in the frequent expression of editorial opinion ventured by the few newspapers of the day. It was in the attempt to quell this "inner anarchy of desire" by legislation that the movement differed from that which we are now witnessing. That it met with the fate of oppressive measures in general we also know. In New Jersey, for example, there was embodied in the statutes a ridiculous law making women who wore wigs or high heels, and who used cosmetics, liable to the penalty in force against

witchcraft. Although no prosecutions are known to have been made of those who continued openly and flauntingly to violate this law, its enactment was a typical manifestation of the social consciousness upon such matters.

On the other hand, the historian tells us little of that more silent revolution in dress and manners, that gradual raising of the standard of living by processes that we now rely upon, and may now see in operation. The pulpit, we know, rang with warnings against this "unseemly pride in clothes and hair." Yet the most puritan of customs, approved by the clergy and enforced by the State, had given way before the mandates of fashion. There were going on all the while in American society gradual and unobserved changes that were converting it from a despotism into a republic of democratic tendencies. In reality the pulpit and the laws played but a small part in that evolutionary process. What actually occurred was a series of conflicts between tastes and standards through which, from the standpoint of the mere moralist,—who is seldom a sociologist,—small advancement could be made. The moralist of the past usually exemplified and rejoiced in a despotic mind. He is still something of an autocrat. He does not even now understand the ways of democracy. For him there has never been but one right path. He does not understand, he does not even know that a transformation of life and customs that has gone on without his observation has been accomplished by means almost wholly left out of his prophecies.

The city fathers of the provinces of New York and New Jersey were doubtless as sorrowful as were Abraham and Solomon over the failure of their people to heed the voice of wisdom. It is not recorded that any were there who saw the real trend of things, unswerved by these minor conflicts. Nor does it yet appear that any historian has since attempted to correlate more than a few of the facts that might now be put together in explanation of the evolutionary process. By much searching it may be discovered that here and there throughout the length and breadth of the land was gradually evolving that idea of a simple life which the prophet would hail as actually reforming his day and generation. In much-reviled Newport, for example, there

dwelt in the middle of the seventeenth century a liberal-minded American gentleman, whose diary reveals a life so open to objective influences, so unbiased by the ascetic doctrines of those about him, that it might well have lent convincing argument to the creed of the later transcendentalists. Nor was Rhode Island the only centre from which like influences spread. Massachusetts, Virginia, Annapolis, Philadelphia and Charlestown were *foci* of equal importance. In them the much-abused theatre, the resort *par excellence* of those who seemed to live for the satisfaction of eighteenth century "ambitions, grudges and whims," had also its salutary effect.

It took another century, however, to complete in the American consciousness ideals which were the synthesis of those fragmentary conceptions of the true relation of man to the objective world. In the meanwhile, neither Thoreau nor Bayard Taylor, in their bucolics of our local community life, could have marked off characteristic periods of American progress but for the thousand and one unobserved changes in our course which were taking us one certain way. That the good folk of Walden Pond and Kennett Square stayed behind in little groups representing a by-gone stage of development, much as Lapp, Finn and Basque preserve for us their evidences of a pre-Aryan culture, does not now give us great uneasiness. Even our friend Pastor Wagner, while voicing the fears of those who cannot yet see us saved at the last, is encouraged by unprecedented numbers of the not altogether despairing.

